needs are discussed throughout these appendices.

a. Single-family Rental Housing

The 1995 American Housing Survey (AHS) reported that 43 percent of all rental housing units are located in ''multifamily'' properties—*i.e.,* properties that contain 5 or more rental units. The bulk (57 percent) of rental units are found in the ''mom and pop shops'' of the rental market—''single-family'' rental properties, containing 1–4 units. These small properties are largely individually-owned and managed, and in many cases the owner-managers live in one of the units in the property. They include many properties in older cities, such as the duplexes in Baltimore and the triple-deckers in Boston. A number of these single-family rental properties are in need of financing for rehabilitation, discussed in the next subsection.

Single-family rental units play an especially important role in lower-income housing. The 1995 AHS found that 57 percent of such units were affordable to very low-income families—exceeding the corresponding share of 49 percent for multifamily units. These units also play a significant role in the GSEs' performance on the housing goals, since 34 percent of the single-family rental units financed by the GSEs in 1997 were affordable to very low-income families.

There is not, however, a strong secondary market for single-family rental mortgages. While single-family rental properties comprise a large segment of the rental stock for lower-income families, they make up a small portion of the GSEs' business. In 1997 the GSEs purchased $11.6 billion in mortgages for such properties, but this represented only 4 percent of the total dollar volume of each enterprise's 1997 business and only 7 percent of total single-family units financed by each GSE. With regard to their credit market share, HUD estimates that the GSEs have financed only about 13 percent of all single-family rental units that received financing in 1997, well below the GSEs' estimated market share of 49 percent for single-family owner properties.

Given the large size of this market, the high percentage of these units which qualify for the GSEs' housing goals, and the weakness of the secondary market for mortgages on these properties, an enhanced presence by Fannie Mae and Freddie Mac in the single-family rental mortgage market would seem warranted.[24]

b. Rehabilitation Problems of Older Areas

A major problem facing lower-income households is that low-cost housing units continue to disappear from the existing housing stock. Older properties are in need of upgrading and rehabilitation. These aging properties are concentrated in central cities and older inner suburbs, and they include not only detached single-family homes, but also small multifamily properties that have begun to deteriorate.

The ability of the nation to maintain the quality and availability of the existing affordable housing stock and to stabilize the neighborhoods where it is found depends on an adequate supply of credit to rehabilitate and repair older units. But obtaining the funds to fix up older properties can be difficult. The owners of small rental properties in need of rehabilitation may be unsophisticated in obtaining financing. The properties are often occupied, and this can complicate the rehabilitation process. Lenders may be reluctant to extend credit because of a sometimes-inaccurate perception of high credit risk involved in such loans.

The GSEs and other market participants have recently begun to pay more attention to these needs for financing of affordable rental housing rehabilitation.[25] However, extra effort is required, due to the complexities of rehabilitation financing, as there is still a need to do more.

c. Small Multifamily Properties

There is evidence that small multifamily properties with 5–50 units have been adversely affected by differentials in the cost of mortgage financing relative to larger properties.[26] While mortgage loans can generally be obtained for most properties, the financing that is available is relatively expensive, with interest rates as much as 150 basis points higher than those on standard multifamily loans. Loan products are characterized by shorter terms and adjustable interest rates. Borrowers typically incur costs for origination and placement fees, environmental reviews, architectural certifications (on new construction or substantial rehabilitation projects), inspections, attorney opinions and certifications, credit reviews, appraisals, and market surveys.[27] Because of a large fixed element, these costs are usually not scaled according to the mortgage loan amount or number of dwelling units in a property and consequently are often prohibitively high on smaller projects.

d. Other Needs

Further discussions of other housing needs and mortgage market problems are provided in the following sections on economic, housing, and demographic conditions. In the single-family area, for example, an important trend has been the growth of the subprime market and the GSEs' participation in the A-minus portion of that market. Manufactured housing finance and rural housing finance are areas that could be served more efficiently with an enhanced secondary market presence. In the multifamily area, properties in need of rehabilitation represent a market segment where financing has sometimes been difficult. Other housing needs and mortgage market problems are also discussed.

C. Factor 2: Economic, Housing, and Demographic Conditions: Single-Family Mortgage Market

This section discusses economic, housing, and demographic conditions that affect the single-family mortgage market. After a review of housing trends and underlying demographic conditions that influence homeownership, the discussion focuses on specific issues related to the single-family owner mortgage market. This subsection includes descriptions of recent market interest rate trends, homebuyer characteristics, and the state of affordable lending. Section D follows with a discussion of the economic, housing, and demographic conditions affecting the multifamily mortgage market.

1. Recent Trends in the Housing Market

Solid economic growth, low interest rates, price stability, and the lowest unemployment rate since 1969 combined to make 1998 a very strong year for the housing market. The employment-population ratio reached a record 64.1 percent last year, and a broad measure of labor market distress, combining the number of unemployed and the duration of unemployment, was down by 47 percent from its 1992 peak.[28] Rising real wages, a strong stock market, and higher home prices all contributed to a continuation of the rise in net household worth, following an estimated $4 trillion gain in 1997, contributing to the strong demand for housing.[29]

Homeownership Rate. In 1980, 65.6 percent of Americans owned their own home, but due to the unsettled economic conditions of the 1980s, this share fell to 63.8 percent by 1989. Major gains in ownership have occurred over the last few years, with the homeownership rate reaching a record level of 66.3 percent in 1998, when the number of households owning their own home was 9 million greater than in 1989.

[24] A detailed discussion of the GSE's activities in this area is contained in Theresa R. Diventi, *The GSE's Purchases of Single-Family Rental Property Mortgages,* Housing Finance Working Paper No. HF–004, Office of Policy Development and Research, Department of Housing and Urban Development, (March 1998).

[25] One program that shows promise is Fannie Mae's HomeStyle Home IMprovement Mortgage Loan Product. Under this program, Fannie Mae will purchase mortgages that finance the purchase and rehabilitation of 1- to 4-unit properties in ''as-is'' condition. The mortgage amount is limited to 90 percent of the appraised ''as completed'' value, with the rehab amount not to exceed 50 percent of this value.

[26] See Drew Schneider and James Follain, ''A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing,'' *Cityscape: A Journal of Policy Development and Research* 4(1), (1998), pp. 43–58; and William Segal and Christopher Herbert, *Segmentation of the Multifamily Mortgage Market: The Case of Small Properties,* paper presented to annual meetings of the American Real Estate and Urban Economics Association, (January 2000).

[27] These costs have been estimated at $30,000 for a typical transaction. Presentation by Jeff Stern, Vice President, Enterprise Mortgage Investments, HUD GSE Working Group, July 23, 1998. The most comprehensive account of the multifamily housing finance system as it relates to small properties is contained in Schneider and Follain (see above reference).

[28] This measure is discussed in Paul B. Manchester, ''A New Measure of Labor Market Distress,'' *Challenge,* (November/December 1982).

[29] Office of Federal Housing Enterprise Oversight, *1998 Report to Congress,* (June 1998), p. 28.

Gains in homeownership have been widespread over the last four years.[30] As a result, the homeownership rate rose from:

(i) 42.0 percent in 1993 to 46.1 percent in 1998 for African American households,

(ii) 39.4 percent in 1993 to 44.7 percent in 1998 for Hispanic households,

(iii) 73.7 percent in 1993 to 77.3 percent in 1998 for married couples with children,

(iv) 65.1 percent in 1993 to 66.9 percent in 1998 for household heads aged 35–44, and

(v) 48.9 percent in 1993 to 50.0 percent in 1998 for central city residents.

However, as these figures demonstrate, sizable gaps in homeownership remain—gaps which must be reduced if President Clinton's National Housing Strategy's goal of a homeownership rate of 67.5 percent by the year 2000 is to be met.

Sales of New and Existing Homes.[31] New home sales rose at a rate of 10 percent per year between 1991 and 1998 and exceeded the previous record level (set in 1977) by eight percent in 1998. The market for new homes has been strong throughout the nation, with record sales in the South and Midwest during 1998. New home sales in the Northeast and West, while strong, are running below the peak levels attained during their strong job markets of the mid-1980s and late-1970s, respectively.

The National Association of Realtors reported that 4.8 million existing homes were sold in 1998, overturning the old record set in 1997 by nearly 14 percent. The combined new and existing home sales also set a record of 5.7 million last year. Since existing homes account for more than 80 percent of the total market and sales of existing homes are strong throughout the country, combined sales reach record levels in three of the four major regions of the nation and came within 99 percent of the record in the Northeast.

One of the strongest sectors of the housing market in recent years has been shipments of manufactured homes, which more than doubled between 1991 and 1996, and leveled off at the 1996 record level during 1997 before rising slightly to 373,000 in 1998. Over two-thirds of manufactured home placements were in the South, where they comprised more than one-third of total new homes sold in 1998.

Economy/Housing Market Prospects. As noted above, the U.S. economy is coming off several years of economic expansion accompanied by low interest rates and high housing affordability. In fact, 1998 was a record year for the housing market. This leads to an important issue, what are the future prospects for the housing market?

While the housing market is expected to slow down over the next four years, the sales of existing homes during 1999 are on a record breaking pace of over five million single-family units.[32] Between 2000 and 2003, existing single-family home sales are expected to average 4.4 million units. In addition to existing home sales, housing starts are expected to average 1.5 million units over the same period. Housing should remain affordable, as indicated by out-of-pocket costs as a share of disposable income, which is expected to continue its downward trend through 2003, dipping below 25 percent. According to Standard & Poor's/DRI, mortgage interest rates are expected to average 7.1 percent over the next four years for a 30-year fixed rate mortgage.

The Congressional Budget Office (CBO)[33] projects that real Gross Domestic Product will grow at an average rate of 2.4 percent through 2003, down somewhat from the expected 4.0 percent growth rate during 1999. The ten-year Treasury rate is projected to average 5.6 percent between 2000 and 2003. Inflation, as measured by the Consumer Price Index (CPI) is projected to remain modest during the same period, averaging 2.5 percent. The unemployment rate is expected to remain low over the next four years, ranging between 4.6 and 5.1 percent. CBO expects housing starts to average 1.6 million units between 2000 and 2003, slightly off the 1999 level.

Certain risks exist, however, which could undermine the well-being of the economy. The probability of a recession still exists for the next couple of years. Under a pessimistic scenario (10 percent probability), Standard & Poor's DRI predicts that housing starts could fall during 2000, but by the end of the year, the economy would be well on its way to recovery with housing starts increasing steadily.[34] An alternate scenario has a recession arriving in 2002 (which DRI predicts with a probability of 30 percent). Under this scenario, housing starts would fall, but rebound strongly, along with the economy, in 2003.[35]

2. Underlying Demographic Conditions

Over the next 20 years, the U.S. population is expected to grow by an average of 2.4 million per year. This will likely result in 1.1 to 1.2 million new households per year, creating a continuing need for additional housing.[36] This section discusses important demographic trends behind these overall numbers that will likely affect housing demand in the future. These demographic forces include the baby-boom, baby-bust and echo baby-boom cycles; immigration trends; "trade-up buyers;" non-traditional and single households; and the growing income inequality between people with different levels of education.

As explained below, the role of traditional first-time homebuyers, 25-to-34 year-old married couples, in the housing market will be smaller in the next decade due to the aging of the baby-boom population. However, growing demand from immigrants and non-traditional homebuyers will likely fill in the void. The echo baby-boom (that is, children of the baby-boomers) will also add to housing demand later in the next decade. Finally, the growing income inequality between people with and without a post-secondary education will continue to affect the housing market.

The Baby-Boom Effect. The demand for housing during the 1980s and 1990s was driven, in large part, by the coming of homebuying age of the baby-boom generation, those born between 1945 and 1964. Homeownership rates for the oldest of the baby-boom generation, those born in the 1940s, rival those of the generation born in the 1930s. Due to significant house price appreciation in the late-1970s and 1980s, older baby-boomers have seen significant gains in their home equity and subsequently have been able to afford larger, more expensive homes. Circumstances were not so favorable for the middle baby-boomers. Housing was not very affordable during the 1980s, their peak homebuying age period. As a result, the homeownership rate, as well as wealth accumulation, for the group of people born in the 1950s lags that of the generations before them.[37]

As the youngest of the baby-boomers, those born in the 1960s, reached their peak homebuying years in the 1990s, housing became more affordable. While this cohort has achieved a homeownership rate equal to the middle baby-boomers, they live in larger, more expensive homes. As the baby-boom generation ages, demand for housing from this group is expected to wind down.[38]

The baby boom generation was followed by the baby bust generation, from 1965 through 1977. Since this population cohort is smaller than that of the baby boom generation, it is expected to lead to reduced housing demand during the next decade, though, as discussed below, other factors have kept the housing market very strong in the 1990s. However, the echo baby-boom generation (the children of the baby-boomers, who were born after 1977), while smaller than the baby-boom generation, will reach peak homebuying age later in the first decade of the new millennium, softening the blow somewhat.[39]

Immigrant Homebuyers. Past, present, and future immigration will also help keep homeownership growth at a respectable level. During the 1980s, 6 million legal immigrants entered the United States, compared with 4.2 million during the 1970s and 3.2 million during the 1960s.[40] As a result, the foreign-born population of the United States doubled from 9.6 million in 1970 to 19.8 million in 1990, and is expected

[30] Homeownership rates prior to 1993 are not strictly comparable with those beginning in 1993 because of a change in weights from the 1980 Census to the 1990 Census.

[31] All of the home sales data in this section are obtained from *U.S. Housing Market Conditions, 2nd Quarter 1999,* U.S. Department of Housing and Urban Development, (August 1999).

[32] Existing home sales, housing starts, housing affordability and 30-year fixed rate mortgage rate forecasts are obtained from Standard & Poor's DRI, *The U.S. Economy.* (September 1999), pp. 53–5.

[33] Real GDP, unemployment, inflation, and treasury note interest rate projects are obtained for fiscal years 2000–2009 from *The Economic and Budget Outlook: An Update,* Washington DC: Congressional Budget Office, (July 1, 1999).

[34] Standard & Poor's DRI, *The U.S. Economy.* (September 1999), p. 54.

[35] Standard & Poor's DRI, *The U.S. Economy.* (September 1999), p. 54.

[36] National Association of Realtors. *Housing Market Will Change in New Millennium as Population Shifts.* (November 7, 1998).

[37] Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998.* (1998), p. 14.

[38] Joint Center for Housing Studies of Harvard University. (1998), p. 15.

[39] National Association of Realtors. *Housing Market Will Change in New Millennium As Population Shifts.* (November 7, 1998).

[40] Joint Center for Housing Studies of Harvard University. (1998).

to reach 31 million by 2010.[41] While immigrants tend to rent their first homes upon arriving in the United States, homeownership rates are substantially higher among those that have lived here for at least 6 years. In 1996, the homeownership rate for recent immigrants was 14.7 percent while it was 67.4 percent for native-born households. For foreign-born naturalized citizens, the homeownership rate after six years was a remarkable 66.9 percent.[42]

Immigration is projected to add even more new Americans in the 1990s, which will help offset declines in the demand for housing caused by the aging of the baby-boom generation. While it is projected that immigrants will account for less than four percent of all households in 2010, without the increase in the number of immigrants, household growth would be 25 percent lower over the next 15 years. As a result of the continued influx of immigrants and the aging of the domestic population, household growth over the next decade should remain at or near its current pace of 1.1–1.2 million new households per year, even though population growth is slowing. If this high rate of foreign immigration continues, it is possible that first-time homebuyers will make up as much as half of the home purchasing market over the next several years.[43]

Past and future immigration will lead to increasing racial and ethnic diversity, especially among the young adult population. As immigrant minorities account for a growing share of first-time homebuyers in many markets, HUD and others will have to intensify their focus on removing discrimination from the housing and mortgage finance systems. The need to meet nontraditional credit needs, respond to diverse housing preferences, and overcome the information barriers that many immigrants face will take on added importance.

Trade-up Buyers. The fastest growing demographic group in the early part of the next millennium will be 45- to 65-year olds. This will translate into a strong demand for upscale housing and second homes. The greater equity resulting from recent increases in home prices should also lead to a larger role for ''trade-up buyers'' in the housing market during the next 10 to 15 years.

Nontraditional and Single Homebuyers. While overall growth in new households has slowed down, nontraditional households have become more important in the homebuyer market. With later marriages and more divorces, single-person and single-parent households have increased rapidly. First-time buyers include a record number of never-married single households, although their ownership rates still lag those of married couple households. According to the Chicago Title and Trust's Home Buyers Surveys, the share of first-time homebuyers who were never-married singles rose from 21 percent in 1991 to 37 percent in 1996, and to a record 43 percent in 1997. The shares for divorced/separated and widowed first-time homebuyers have stayed constant over the period, at eight percent and one percent, respectively.[44] The National Association of Realtors reports that ''single individuals, unmarried couples and minorities are entering the market as first-time buyers in record numbers.''[45] With the increase in single person households, it is expected that there will be a greater need for apartments, condominiums and townhomes.

Due to weak house price appreciation, traditional ''trade-up buyers'' stayed out of the market during the early 1990s. Their absence may explain, in part, the large representation of nontraditional homebuyers during that period. Single-parent households are also expected to decline as the baby-boom generation ages out of the childbearing years. For these reasons, nontraditional homebuyers may account for a smaller share of the housing market in the future.

Growing Income Inequality. The Census Bureau recently reported that the top 5 percent of American households received 21.7 percent of aggregate household income in 1997, up sharply from 16.1 percent in 1977. The share accruing to the lowest 80 percent of households fell accordingly, from 56.5 percent in 1977 to 50.7 percent in 1997. The share of aggregate income accruing to households between the 80th and 95th percentiles of the income distribution was virtually unchanged over this period.[46]

The increase in income inequality over the past two decades has been especially significant between those with and those without post-secondary education. The Census Bureau reports that by 1997, the mean income of householders with a high school education (or less) was less than half that for householders with a bachelor's degree (or more). According to the Joint Center for Housing Studies, inflation-adjusted median earnings of men aged 25 to 34 with only a high-school education decreased by 14 percent between 1989 and 1995.[47] So, while homeownership is highly affordable, this cohort lacks the financial resources to take advantage of the opportunity. As discussed earlier, the days of the well-paying unionized factory job have passed. They have given way to technological change that favors white-collar jobs requiring college degrees, and wages in the manufacturing jobs that remain are experiencing downward pressures from economic globalization. The effect of this is that workers without the benefit of a post-secondary education find their demand for housing constrained.

3. Single-Family Owner Mortgage Market

The mortgage market has undergone a great deal of growth and change over the past few years. Low interest rates, modest increases in home prices, and growth in real household income have increased the affordability of housing and resulted in a mortgage market boom. Total originations of single-family loans increased from $458 billion in 1990 to $859 billion in 1997 and then jumped to $1.507 trillion during the heavy refinancing year of 1998.[48] There has also been many changes in the structure and operation of the mortgage market. Innovations in lending products, added flexibility in underwriting guidelines, the development of automated underwriting systems and the rise of the subprime market, have had impacts on both the overall market and affordable lending during the 1990s.

The section starts with a review of trends in the market for mortgages on single-family owner-occupied housing. Next, trends in affordable lending, including new initiatives and changes to underwriting guidelines and the prospects for potential homebuyers are discussed. The section concludes with a summary of the activity of the GSEs relative to originations in the primary mortgage market.

a. Basic Trends in the Mortgage Market

Interest Rate Trends. The high and volatile mortgage rates of the 1980s and early 1990s have given way to a period with much lower and more stable rates in the last six years. Interest rates on mortgages for new homes were above 12 percent as the 1980s began and quickly rose to more than 15 percent.[49] After 1982, they drifted downward slowly to the 9 percent range in 1987–88, before rising back into double-digits in 1989–90. Rates then dropped by about one percentage point a year for three years, reaching a low of 6.8 percent in October-November 1993 and averaging 7.2 percent for the year as a whole.

Mortgage rates turned upward in 1994, peaking at 8.3 percent in early 1995, but fell to the 7.5 percent–7.9 percent range for most of 1996 and 1997. However, rates began another descent in late-1997 and averaged 6.95 percent for 30-year fixed rate conventional mortgages during 1998, the lowest level since 1968.[50]

Other Loan Terms. When mortgage rates are low, most homebuyers prefer to lock in a fixed-rate mortgage (FRM). Adjustable-rate

[41] John R. Pitkin and Patrick A. Simmons. ''The Foreign-Born Population to 2010: A Prospective Analysis by Country of Birth, Age, and Duration of U.S. Residence,'' *Journal of Housing Research.* 7(1) (1996), pp. 1–31.

[42] Fred Flick and Kate Anderson. ''Future of Housing Demand: Special Markets,'' *Real Estate Outlook.* (1998), p. 6.

[43] Mark A. Calabria. ''The Changing Picture of Homebuyers,'' *Real Estate Outlook.* (May 1999), p. 10.

[44] Chicago Title and Trust Family of Insurers, *Who's Buying Homes in America.* (1998).

[45] Calabria. (May 1999), p. 11.

[46] Bureau of the Census, ''Money Income in the United States: 1997,'' *Current Population Report P60–200,* (September 1998).

[47] Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998.* (1998).

[48] Data for 1990–97 from *U.S. Housing Market Conditions, 1st Quarter 1999,* U.S. Department of Housing and Urban Development, (May 1999), Table 17; 1998 from the Mortgage Bankers Association.

[49] Interest rates in this section are effective rates paid on conventional home purchase mortgages on new homes, based on the Monthly Interest Rate Survey (MIRS) conducted by the Federal Housing Finance Board and published by the Council of Economic Advisers annually in the *Economic Report of the President* and monthly in *Economic Indicators.* These are average rates for all loan types, encompassing 30-year and 15-year fixed-rate mortgages and adjustable rate mortgages.

[50] *U.S. Housing Market Conditions, 2nd Quarter 1999,* (August 1999), Table 12.

mortgages (ARMs) are more attractive when rates are high, because they carry lower rates than FRMs and because buyers may hope to refinance to a FRM when mortgage rates decline. Thus the Federal Housing Finance Board (FHFB) reports that the ARM share of the market jumped from 20 percent in the low-rate market of 1993 to 39 percent when rates rose in 1994.[51] The ARM share has since trended downward, falling to 22 percent in 1997 and a record low of 12 percent in 1998.

In 1997 the term-to-maturity was 30 years for 83 percent of conventional home purchase mortgages. Other maturities included 15 years (11 percent of mortgages), 20 years (2 percent), and 25 years (1 percent). The average term was 27.5 years, up slightly from 26.9 years in 1996, but within the narrow range of 25–28 years which has prevailed since 1975.

One dimension of the mortgage market which has changed in recent years is the increased popularity of low- or no-point mortgages. FHFB reports that average initial fees and charges (''points'') have decreased from 2.5 percent of loan balance in the mid-1980s to 2 percent in the late-1980s, 1.5 percent in the early 1990s, and less than 1.0 percent in 1995–97. Last year 21 percent of all loans were no-point mortgages. These lower transactions costs have increased the propensity of homeowners to refinance their mortgages.[52]

Another recent major change in the conventional mortgage market has been the proliferation of high loan-to-value ratio (LTV) mortgages. Loans with LTVs greater than 90 percent (that is, down payments of less than 10 percent) made up less than 10 percent of the market in 1989–91, but 25 percent of the market in 1994–97. Loans with LTVs less than or equal to 80 percent fell from three-quarters of the market in 1989–91 to an average of 56 percent of mortgages originated in 1994–97. As a result, the average LTV rose from 75 percent in 1989–91 to nearly 80 percent in 1994–97.[53]

The statistics cited above pertain only to home purchase mortgages. Refinance mortgages generally have shorter terms and lower loan-to-value ratios than home purchase mortgages.

Mortgage Originations: Refinance Mortgages. Mortgage rates affect the volume of both home purchase mortgages and mortgages used to refinance an existing mortgage. The effects of mortgage rates on the volume of home purchase mortgages are felt through their role in determining housing affordability, discussed in the next subsection. However, the largest impact of rate swings on single-family mortgage originations is reflected in the volume of refinancings.

During 1992–93, homeowners responded to the lowest rates in 25 years by refinancing existing mortgages. In 1989–90 interest rates exceeded 10 percent, and refinancings accounted for less than 25 percent of total mortgage originations.[54] The subsequent sharp decline in mortgage rates drove the refinance share over 50 percent in 1992 and 1993 and propelled total single-family originations to more than $1 trillion in 1993—twice the level attained just three years earlier.

The refinance wave subsided after 1993, because most homeowners who found it beneficial to refinance had already done so and because mortgage rates rose once again.[55] Total single-family mortgage originations bottomed out at $639 billion in 1995, when the refinance share was only 15 percent. This meant that refinance volume declined by more than 80 percent in just two years.

A second surge in refinancings began in late-1997, abated somewhat in early 1998, but regained momentum in June 1998. The refinance share rose above 30 percent in mid-1997, exceeded 40 percent in late-1997, and peaked at 64 percent in January, before falling to 40 percent by May 1998. This share increased steadily over the June-September 1998 period, and averaged 50 percent for 1998. Total originations, driven by the volume of refinancings, amounted to $859 billion in 1997 and were $1.507 trillion in 1998, nearly 50 percent higher than the previous record level of $1.02 trillion attained in 1993. Total refinance mortgage volume in 1998 was estimated to be nearly 10 times the level attained in 1995. The 1997–98 refinance wave reflects other factors besides interest rates, including greater borrower awareness of the benefits of refinancing, a highly competitive mortgage market, and the enhanced ability of the mortgage industry (including the GSEs), utilizing automated underwriting and mortgage origination systems, to handle this unprecedented volume expeditiously.

Mortgage Originations: Home Purchase Mortgages. In 1972 the median price of existing homes in the United States was $27,000 and mortgage rates averaged 7.52 percent; thus with a 20 percent down payment, a family needed an income of $7,200 to qualify for a loan on a median-priced home. Actual median family income was $11,100, exceeding qualifying income by 55 percent. The National Association of Realtors (NAR) has developed a housing affordability index, calculated as the ratio of median income to qualifying income, which was 155 in 1972.

By 1982 NAR's affordability index had plummeted to 70, reflecting a 154 percent increase in home prices and a doubling of mortgage rates over the decade. That is, qualifying income rose by nearly 400 percent, to $33,700, while median family income barely doubled, to $23,400. With so many families priced out of the market, single-family mortgage originations amounted to only $97 billion in 1982.

Declining interest rates and the moderation of inflation in home prices have led to a dramatic turnaround in housing affordability in the last decade and a half. Remarkably, qualifying income in 1993 was $27,700 in 1993—$6,000 less than it had been in 1982. Median family income reached $37,000 in 1993, thus the NAR's housing affordability index reached 133, reflecting the most affordable housing in 20 years. Housing affordability has remained at about 130 since 1993, with home price increases and somewhat higher mortgage rates in 1994–97 being offset by gains in median family income.[56]

The high affordability of housing, low unemployment, and high consumer confidence meant that home purchase mortgages reached a record level in 1997. However, this record was surpassed in 1998, as a July 1998 survey by Fannie Mae found that ''every single previously cited barrier to homeownership—from not having enough money for a down payment, to not having sufficient information about how to buy a home, to the confidence one has in his job, to discrimination or social barriers—has collapsed to the lowest level recorded in the seven years Fannie Mae has sponsored its annual National Housing Survey.'' [57] Specifically, the Mortgage Bankers Association estimates that home purchase mortgages rose to about $750 billion in 1998, well above the previous record of $576 billion established in 1997.

First-time Homebuyers. First-time homebuyers have been the driving force in the recovery of the nation's housing market over the past several years. First-time homebuyers are typically people in the 25–34 year-old age group that purchase modestly priced houses. As the post-World War II baby boom generation ages, the percentage of Americans in this age group decreased from 28.3 percent in 1980 to 25.4 percent in 1992.[58] Even though this cohort is smaller, first-time homebuyers increased their share of home sales. First-time buyers accounted for about 47 percent of home sales in 1997. Participation rates for first-time homebuyers so far this decade are all in excess of 45 percent. This follows participation rates that averaged 40 percent in the 1980s, including a low of 36 percent in 1985. The highest first-

[51] *All statistics in this section are taken from the Federal Housing Finance Board's MIRS.*

[52] This is discussed in more detail in Paul Bennett, Richard Peach, and Stavros Peristani, *Structural Change in the Mortgage Market and the Propensity to Refinance,* Staff Report Number 45, Federal Reserve Bank of New York, (September 1998).

[53] Other sources of data on loan-to-value ratios such as the American Housing Survey and the Chicago Title and Trust Company indicated that high-LTV mortgages are somewhat more common in the primary market than the Finance Board's survey. However, the Chicago Title survey does not separate FHA-insured loans from conventional mortgages.

[54] Refinancing data is taken from Freddie Mac's monthly *Primary Mortgage Market Survey.*

[55] There is some evidence that lower-income borrowers did not participate in the 1993 refinance boom as much as higher-income borrowers—see Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996–97 Update,* Housing Finance Working Paper No. HF–006, Office of Policy Development and Research, Department of Housing and Urban Development, (August 1998), pp. 30–32.

[56] Housing affordability varies markedly between regions, ranging in May 1998 from 164 in the Midwest to 100 in the West, with the South and Northeast falling in between.

[57] Fannie Mae, http://www.fanniemae.com/news/housingsurvey/1998, (July 16, 1998).

[58] U.S. Department of Commerce, Bureau of the Census, *Money Income of Households, Families, and Persons in the United States: 1992,* Special Studies Series P–60, No. 184, Table B–25, (October 1993).

time homebuyer participation rate was achieved in 1977 when it was 48 percent.[59]

The Chicago Title and Trust Company reports that the average first time-buyer in 1997 was 32 years old and spent 5 months looking at 14 homes before making a purchase decision. Most such buyers are married couples, but in 1997 21 percent were never-married males and 13 percent were never-married females.

First time buyers paid an average of 35 percent of after-tax income, or $1,020 per month, on their mortgage payments in 1997, and saved for 2.2 years to accumulate a down payment. The National Association of Realtors reports that first-time buyers took out an average mortgage of $102,000 in 1997, corresponding to an LTV of 90 percent, compared with a mortgage of $132,000 and an average LTV of 84 percent for repeat buyers.

GSEs' Acquisitions as a Share of the Primary Single-Family Mortgage Market. The GSEs' single-family mortgage acquisitions have generally followed the volume of originations in the primary market for conventional mortgages, falling from 5.3 million mortgages in the record year of 1993 to 2.2 million mortgages in 1995, but rebounding to 2.9 million mortgages in 1996. In 1997, however, single-family originations were essentially unchanged, but the GSEs' acquisitions declined to 2.7 million mortgages.[60] This pattern was reversed in 1998, when originations rose by 73 percent, but the GSEs' purchases jumped to 5.8 million mortgages.

Reflecting these divergent trends, the Office of Federal Housing Enterprise Oversight (OFHEO) estimates that the GSEs' share of the conventional single-family mortgage market, measured in dollars, declined from 42 percent in 1996 to 37 percent in 1997—well below the peak of 58 percent attained in 1993.[61] OFHEO attributes the 1997 downturn in the GSEs' role to increased holdings of mortgages in portfolio by depository institutions and to increased competition with Fannie Mae and Freddie Mac by private label issuers. However, OFHEO estimates that the GSEs' share of the market rebounded sharply in 1998, to 48 percent.

Mortgage Market Prospects. The Mortgage Bankers Association (MBA) reports that 1998 was a record-breaking year, with $1.507 trillion in mortgage originations. Refinancing of existing mortgages was also up in 1998, accounting for 50 percent share of the total mortgage originations. Meanwhile, ARMs accounted for a smaller share, 12 percent, of originations than usual. The mortgage market should remain strong in 1999, but should settle down a bit in the year 2000. The MBA predicts that originations will amount to $1.29 trillion, with refinancings representing 35 percent of originations, during 1999. The MBA expects originations and refinancing activity to return to a more normal pace in 2000. ARMs are expected to account for a larger share, 23 percent in 1999 and 32 percent in 2000, of total mortgage originations.[62]

b. Affordable Lending in the Mortgage Market

In the past few years, conventional lenders, private mortgage insurers and the GSEs have begun implementing changes to extend homeownership opportunities to lower-income and historically underserved households. The industry has started offering more customized products, more flexible underwriting, and expanded outreach so that the benefits of the mortgage market can be extended to those who have not been adequately served through traditional products, underwriting, and marketing. This section summarizes recent initiatives undertaken by the industry to expand affordable housing. The section also discusses the significant role FHA plays in making affordable housing available to historically underserved groups.

Down Payments. GE Capital's 1989 Community Homebuyer Program first allowed homebuyers who completed a program of homeownership counseling to have higher than normal payment-to-income qualifying ratios, while providing less than the full 5-percent down payment from their own funds. Thus the program allowed borrowers to qualify for larger loans than would have been permitted under standard underwriting rules. Fannie Mae made this Community Homebuyer Program a part of its own offerings in 1990. Affordable Gold is a similar program introduced by Freddie Mac in 1992. Many of these programs allowed 2 percentage points of the 5-percent down payment to come from gifts from relatives or grants and unsecured loans from local governments or nonprofit organizations.

In 1994, the industry (including lenders, private mortgage insurers and the GSEs) began offering mortgage products that required down payments of only 3 percent, plus points and closing costs. Other industry efforts to reduce borrowers' up front costs have included zero-point-interest-rate mortgages and monthly insurance premiums with no up front component. These new plans eliminated large up front points and premiums normally required at closing.

During 1998, Fannie Mae introduced its ''Flexible 97'' and Freddie Mac introduced its ''Alt 97'' low down payment lending programs. Under these programs borrowers are required to put down only 3 percent of the purchase price. The down payment, as well as closing costs, can be obtained from a variety of sources, including gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets. While these programs started out slowly, by November 1998 both GSEs' programs reached volumes of $200 million per month. However, the GSEs are expected to purchase less than $4 billion in their 97 percent LTV programs by the end of 1998, well below the $75 billion of 97 percent LTV loans that FHA is expected to insure in 1998.[63]

In early 1999, Fannie Mae announced that it would introduce several changes to their mortgage insurance requirements. The planned result is to provide options for low downpayment borrowers to reduce their mortgage insurance costs. Franklin D. Raines, Fannie Mae chairman and chief executive officer stated, ''Now, thanks to our underwriting technology, our success in reducing credit losses, and innovative new arrangements with mortgage insurance companies, we can increase mortgage insurance options and pass the savings directly on to consumers.''[64]

Partnerships. In addition to developing new affordable products, lenders and the GSEs have been entering into partnerships with local governments and nonprofit organizations to increase mortgage access to underserved borrowers. Fannie Mae's partnership offices in 33 central cities, serving to coordinate Fannie Mae's programs with local lenders and affordable housing groups, are an example of this initiative. Another example is the partnership Fannie Mae and the National Association for the Advancement of Colored People (NAACP) announced in January 1999.[65] Under this partnership, Fannie Mae will provide funding for technical assistance to expand the NAACP's capacity to provide homeownership information and counseling. It will also invest in NAACP-affiliated affordable housing development efforts and explore structures to assist the organization in leveraging its assets to secure downpayment funds for eligible borrowers. Furthermore, Fannie Mae will provide up to $110 million in special financing products, including a new $50 million underwriting experiment specifically tailored to NAACP clientele.

Freddie Mac does not have a partnership office structure similar to Fannie Mae's, but it has undertaken a number of initiatives in specific metropolitan areas. Freddie Mac also announced on January 15, 1999 that it entered into a broad initiative with the NAACP to increase minority homeownership. Through this alliance, Freddie Mac and the NAACP seek to expand community-based outreach, credit counseling and marketing efforts, and the availability of low-downpayment mortgage products with flexible underwriting guidelines. As part of the initiative, Freddie Mac has committed to purchase $500 million in mortgage loans.[66]

The above are only examples of the partnership efforts undertaken by the GSEs. There are more partnership programs than can be adequately described here. For full descriptions of Fannie Mae's and Freddie

---

[59] Chicago Title and Trust Family of Insurers, *Who's Buying Homes in America,* (1998).

[60] Single-family originations rose by 10 percent in dollar terms in 1997, but the Mortgage Bankers Association estimates that they fell by 0.6 percent in terms of the number of loans.

[61] Office of Federal Housing Enterprise Oversight, *1998 Report to Congress,* Figure 9, p. 32. The GSEs' market shares in terms of units financed in 1997 are shown below in Table A.7.

[62] Mortgage market projections obtained from the MBA's *MBA Mortgage Finance Forecast*, October 1999.

[63] ''After Slow Start, Fannie and Freddie Report Growing Interest in 97 Percent LTV Products,'' *Inside Mortgage Finance.* (November 20, 1998), pp. 10–11.

[64] Speech before the annual convention of the National Association of Home Builders in Dallas TX, (January 1999).

[65] Fannie Mae News Release (January 1999).

[66] Freddie Mac News Release (January 15, 1999).

Mac's partnership programs, see their respective Annual Reports.

Underwriting Flexibility. Lenders, mortgage insurers, and the GSEs have also been modifying their underwriting standards to attempt to address the needs of families who find qualifying under traditional guidelines difficult. The goal of these underwriting changes is not to loosen underwriting standards, but rather to identify creditworthiness by alternative means that more appropriately measure the circumstances of lower-income households. The changes to underwriting standards include, for example:

(i) Using a stable income standard rather than a stable job standard. This particularly benefits low-skilled applicants who have successfully remained employed, even with frequent job changes.

(ii) Using an applicant's history of rent and utility payments as a measure of creditworthiness. This measure benefits lower-income applicants who have not established a credit history.

(iii) Allowing pooling of funds for qualification purposes. This change benefits applicants with extended family members.

(iv) Making exceptions to the ''declining market'' rule and clarifying the treatment of mixed-use properties.[67] These changes benefit applicants from inner-city underserved neighborhoods.

These underwriting changes have been accompanied by homeownership counseling to ensure homeowners are ready for the responsibilities of homeownership. In addition, the industry has engaged in intensive loss mitigation to control risks.

Increase in Affordable Lending, 1993–1997.[68] Home Mortgage Disclosure Act (HMDA) data suggest that the new industry initiatives may be increasing the flow of credit to underserved borrowers. Between 1993 and 1997, conventional loans to low-income and minority families increased at much faster rates than loans to higher income and non-minority families. As shown below, over this period home purchase originations to African Americans and Hispanics grew by almost 60 percent, and purchase loans to low-income borrowers (those with incomes less than 80 percent of area median income) increased by 45 percent.

	1993–97 percent	1995–97 percent
All Borrowers	28.1	11.1
African Americans/ Hispanics	57.7	−0.2
Whites	21.9	8.9
Income Less Than 80% AMI	45.1	15.4
Income Greater Than 120% AMI	31.5	24.5

However, as also shown, in the latter part of this period conventional lending for some groups slowed significantly. Between 1995 and 1997, the slowing of the growth of home purchase originations was much greater for low-income borrowers than for higher-income borrowers. Moreover , even though remaining at near-peak levels in 1997, conventional home purchase originations to African Americans and Hispanics actually decreased by two-tenths of a percent over the past three years. It should be noted, however, that total loans (conventional plus government) originated to African-American and Hispanic borrowers increased between 1995 and 1997, but this was mainly the result of a 40.0 percent increase in FHA-insured loans originated for African-American and Hispanic borrowers.

Affordable Lending Shares by Major Market Sector. The focus of the different sectors of the mortgage market on affordable lending can be seen by examining Tables A.1a, A.1b, and A.2. Tables A.1a and A.1b present affordable lending percentages for FHA, the GSEs, depositories (banks and thrift institutions), the conventional conforming sector, and the overall market.[69] The discussion below will center on Table A.1a, which provides information on home purchase loans and thus, homeownership opportunities. Table A.1b, which provides information on total (both home purchase and refinance) loans, is included to give a complete picture of mortgage activity. Both 1997 and 1998 data are included in these tables; the year 1997 represents a more typical year of mortgage activity than 1998, which was characterized by heavy refinance activity.

The interpretation of the ''distribution of business'' percentages, reported in Table A.1a for several borrower and neighborhood characteristics, can be illustrated using the FHA percentage for low-income borrowers: during 1997, 47.5 percent of all FHA-insured home purchase loans in metropolitan areas were originated for borrowers with an income less than 80 percent of the local area median income. Table A.2, on the other hand, presents ''market share'' percentages that measure the portion of all home purchase loans for a specific affordable lending category (such as low-income borrowers) accounted for by a particular sector of the mortgage market (FHA or the GSEs). In this case, the FHA market share of 33 percent for low-income borrowers is interpreted as follows: of all home purchase loans originated in metropolitan areas during 1997, 33 percent were FHA-insured loans. Thus, this ''market share'' percentage measures the importance of FHA to the market's overall funding of loans for low-income borrowers.

BILLING CODE 4210–27–P

[67] Standard underwriting procedures characterize a property in a declining neighborhood as one at high risk of losing value. Implicitly, these underwriting standards presume that the real estate market is inefficient in economic terms, that is, prices do not reflect all available information.

[68] For an update of this analysis to include 1998, see Randall M. Scheessele, *1998 HMDA Highlights,* Housing Finance Working Paper HF–009, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (October 1999).

[69] The ''overall'' market is defined as all loans (including both government and conventional) below the 1997 conforming loan limit of $214,600 and the 1998 conforming loan limit of $227,150.

Table A.1a

Affordable Lending Shares for Major Sectors of the Home Purchase Mortgage Market in Metropolitan Areas, 1997 and 1998

			Conventional Conforming Market				
Borrower Characteristics	Total Market	FHA	Freddie Mac	Fannie Mae	Both GSEs	Depositories	Total Conforming Market
Low-Income: 1997	32.0 %	47.5 %[1]	19.2 %	23.2 %	21.6 %	29.4 %	27.3 %
1998	32.3	49.1	22.4	25.6	24.3	29.9	27.8
African American: 1997	7.8	14.4	3.2	4.6	4.1	4.7	5.1
1998	7.4	14.2	3.3	4.0	3.7	4.8	4.9
Hispanic: 1997	8.7	17.8	5.1	6.3	5.8	5.1	5.9
1998	8.6	18.6	4.7	6.1	5.6	5.5	6.1
Minority: 1997	21.4	35.8	14.0	17.8	16.3	14.6	16.5
1998	21.0	36.5	13.1	16.6	15.2	15.2	16.6
Neighborhood Characteristics							
Low-Income Tract: 1997	12.8 %	19.1 %	7.9 %	9.7 %	9.0 %	12.0 %	10.9 %
1998	12.3	18.7	8.0	9.7	9.0	12.1	10.7
High-Minority Tract: 1997	17.3	27.1	11.4	15.5	13.9	12.2	14.1
1998	16.9	27.0	10.8	14.5	13.0	12.6	14.1
High African-American Tract: 1997	5.8	9.6	3.0	4.9	4.2	4.7	4.6
1998	5.5	9.2	3.2	4.1	3.8	4.7	4.5
Underserved Areas: 1997	29.1	41.3	19.9	23.8	22.3	26.3	25.2
1998	28.2	41.2	20.0	23.5	22.1	26.1	24.6

Notes: All the data are for home purchase mortgages. The FHA, depositories, and the two market percentages are derived from 1997 and 1998 HMDA data. The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include all home loans purchased during 1997 and 1998; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998) as well as their purchases of mortgages originated during 1997 and 1998. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the 1997 (1998) conforming loan limit of $214,600 ($227,150). The "Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-1998 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six.

[1] Each percentage represents the share of a sector's portfolio accounted for by the borrower or neighborhood characteristic. For example, 47.5 percent of FHA-insured home loans were loans for low-income borrowers.

Table A.1b

Affordable Lending Shares for Major Sectors of the Home Purchase and Refinance Mortgage Market in Metropolitan Areas, 1997 and 1998

			Conventional Conforming Market				
Borrower Characteristics	Total Market	FHA	Freddie Mac	Fannie Mae	Both GSEs	Depositories	Total Conforming Market
Low-Income: 1997	31.1 %	47.1 %[1]	20.6 %	22.7 %	21.8 %	28.0 %	28.1 %
1998	28.1	48.2	21.7	22.5	22.1	26.2	25.8
African American: 1997	8.0	14.2	3.2	4.2	3.8	4.8	6.3
1998	6.5	13.7	3.0	3.2	3.1	4.4	5.0
Hispanic: 1997	7.4	17.8	4.8	5.7	5.3	4.6	5.4
1998	6.7	17.2	4.4	4.9	4.7	4.5	5.2
Minority: 1997	20.1	35.6	13.1	16.3	15.0	13.4	16.7
1998	18.0	34.8	12.2	14.0	13.2	13.1	15.3
Neighborhood Characteristics							
Low-Income Tract: 1997	13.6 %	18.9 %	8.6 %	9.6 %	9.2 %	11.9 %	12.7 %
1998	11.5	17.4	8.1	8.4	8.2	10.9	10.7
High-Minority Tract: 1997	17.8	27.5	11.8	15.1	13.8	12.2	15.9
1998	16.2	27.2	11.5	13.2	12.5	12.2	14.5
High African-American Tract: 1997	7.1	9.7	3.5	4.6	4.2	5.1	6.6
1998	5.8	9.1	3.6	3.5	3.5	4.7	5.3
Underserved Areas: 1997	30.0	41.1	21.6	23.9	22.9	26.5	27.8
1998	26.8	39.9	21.0	21.5	21.3	25.0	24.8

Notes: All the data are for home purchase and refinance mortgages. The FHA, depositories, and the two market percentages are derived from 1997 and 1998 HMDA data. The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include all loans purchased during 1997 and 1998; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998) as well as their purchases of mortgages originated during 1997 and 1998. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the 1997 (1998) conforming loan limit of $214,600 ($227,150). The "Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-1998 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six.

[1] Each percentage represents the share of a sector's portfolio accounted for by the borrower or neighborhood characteristic. For example, 47.1 percent of FHA-insured home loans were loans for low-income borrowers. It should be noted that due to FHA's streamline refinance program, borrower income data were not available for almost 70 percent of FHA's refinance loans.

Table A.2

FHA-Insured Loans and GSE Purchases As Shares of Home Purchase Mortgages Originated in Metropolitan Areas During 1997

	FHA-Insured	GSE Purchases
Low-Income Borrowers	33% [1]	28-30%
African-American and Hispanic Borrowers	44%	24-27%
Low-Income Tracts	35%	31%
High Minority Tracts	37%	35%
Underserved Areas[2]	33%	33%
All Loans	23%	44%

Source: 1997 HMDA data and 1997 GSE data.

Notes: The FHA figures (first column) refer to percentages of all newly-mortgaged home purchase mortgage loans (except jumbo loans above the conforming loan limit of $214,600) in metropolitan areas that were FHA insured during 1997. The GSE figures (second column) are defined differently-- they include GSE purchases in metropolitan areas during 1997 of both 1997 and prior-year conventional mortgage originations. (About one-fourth of the GSEs' 1997 purchases were mortgages originated prior to 1997.) See Table A.7 for an analyis that focuses only on the GSEs' purchases of 1997 mortgage originations. The second GSE figure for the borrower income and race variables is calculated by reallocating missing GSE data for the variables. As with the FHA data, the GSE purchases are expressed as a percentage of the total market in metropolitan areas. In this table, the "total market" includes all (government and conventional) home purchase mortgages originated in metropolitan areas during 1997 that were below the conforming loan limit of $214,600. The market data reported in HMDA are adjusted upward by 10 percent, which assumes that HMDA covers 90 percent of the metropolitan mortgage market. A lower coverage assumption would increase the market totals and thus reduce the GSE and FHA market shares. Assumptions about HMDA's coverage of FHA loans were based on a comparison of FHA loans as reported by 1996 HMDA data with FHA loans as reported by FHA for 1996. Thus, an updating of this FHA coverage analysis could change the FHA market shares reported here.

[1] That is, it is estimated that FHA insured for 33 percent of all home purchase loans that were originated during 1997 and were for low-income borrowers in metropolitan areas.

[2] Metropolitan census tracts with (1) median income less than or equal to 90 percent of AMI or (2) minority concentration greater than or equal to 30 percent and tract median income less than or equal to 120 percent of AMI.

BILLING CODE 4210–27–C

Four main conclusions may be drawn from the data presented in Tables A.1a and A.2. First, FHA places much more emphasis on affordable lending than the other market sectors. Low-income borrowers accounted for 47.5 percent of FHA-insured loans during 1997, compared with 21.6 percent of the home loans purchased by the GSEs, 29.4 percent of home loans retained by depositories, and 27.3 percent of conventional conforming loans.[70] Likewise, 41.3 percent of FHA-insured loans were originated in underserved census tracts, while only 22.3 percent of the GSE-purchased loans and 25.2 percent of conventional conforming loans were originated in these tracts.[71] As shown in Table A.2, while FHA insured only 23 percent of all home purchase mortgages originated in metropolitan areas during 1997, it insured 33 percent of all mortgages originated in underserved areas.[72]

Second, the affordable lending shares for the conventional conforming sector are particularly low for minority borrowers and their neighborhoods. For example, African-American and Hispanic borrowers accounted for only 11.0 percent of all conventional conforming loans originated during 1997, compared with 32.2 percent of FHA-insured loans and 16.5 percent of all loans originated in the market. Within the conventional conforming sector, about 10 percent of both GSE-purchased loans and loans retained by depositories were originated for African Americans and Hispanics. Only 8.3 percent of Freddie Mac's purchases were loans for these borrowers, compared with 10.9 percent of Fannie Mae's purchases. As shown in Table A.1a, Fannie Mae purchased mortgages for minority borrowers and their neighborhoods at higher rates than these loans were originated by primary lenders in the conventional conforming market. During 1997, 17.8 percent of Fannie Mae's purchases were mortgages for minority borrowers, compared with 16.5 percent of conventional conforming loans. During 1998, 14.5 percent of Fannie Mae's purchases financed homes in high-minority census tracts, compared with 14.1 percent of conventional conforming loans. However, the minority lending performance of conventional lenders has been subject to much criticism in recent studies. These studies contend that primary lenders in the conventional market are not doing their fair share of minority lending which forces minorities, particularly African-American and Hispanic borrowers, to the more costly FHA and subprime markets.[73]

Third, the GSEs, but particularly Freddie Mac, tend to lag the conventional conforming market in funding affordable loans for low-income families and their neighborhoods. During 1997 and 1998, low-income census tracts accounted for 8.0 percent of Freddie Mac's purchases, 9.7 percent of Fannie Mae's purchases, 12.1 percent of loans retained by depositories, and 10.8 percent of all home loans originated by conventional conforming lenders. This pattern of Freddie Mac lagging all market participants holds up for all of the borrower and neighborhood categories examined in Table A.1a. One encouraging trend is the significant increase in both GSEs' purchases of low-income-borrower loans between 1997 and 1998; on the other hand, the GSE percentages for the other borrower and neighborhood categories examined in Table A.1a declined between 1997 and 1998. A more complete analysis of the GSEs' purchases of mortgages qualifying for the housing goals will be provided below in Section E.

Finally, within the conventional conforming market, depository institutions stand out as important providers of affordable lending for lower-income families and their neighborhoods (see Table A.1a).[74] Depository lenders have extensive knowledge of their communities and direct interactions with their borrowers, which may enable them to introduce flexibility into their underwriting standards without unduly increasing their credit risk. Another important factor influencing the types of loans held by depository lenders is the Community Reinvestment Act, which is discussed next.

Seasoned CRA Loans. The Community Reinvestment Act (CRA) requires depository institutions to help meet the credit needs of their communities. CRA provides an incentive for lenders to initiate affordable lending programs with underwriting flexibility.[75] CRA loans are typically made to low- and moderate-income borrowers earning less than 80 percent of median income for their area, and in moderate-income neighborhoods. They are usually smaller than typical conventional mortgages and also are likely to have a high LTV, high debt-to-income ratios, no payment reserves, and may not be carrying private mortgage insurance (PMI). Generally, at the time CRA loans are originated, many do not meet the underwriting guidelines required in order for them to be purchased by one of the GSEs. Therefore, many of the CRA loans are held in portfolio by lenders, rather than sold to Fannie Mae or Freddie Mac. On average, CRA loans in a pool have three to four years seasoning.[76]

However, because of the size, LTV and PMI characteristics of CRA loans, they have slower prepayment rates than traditional mortgages, making them attractive for securitization. CRA loan delinquencies also have very high cure rates.[77] For banks, selling CRA pools will free up capital to make new CRA loans. As a result, the CRA market segment may provide an opportunity for Fannie Mae and Freddie Mac to expand their affordable lending programs. In mid-1997, Fannie Mae launched its Community Reinvestment Act Portfolio Initiative. Under this pilot program Fannie Mae purchases seasoned CRA loans in bulk transactions taking into account track record as opposed to relying just on underwriting guidelines. By the end of 1997, Fannie Mae had financed $1 billion in CRA loans through this pilot.[78] With billions of dollars worth of CRA loans in bank portfolios the market for securitization should improve. Section D, below, presents data showing that Fannie Mae's purchases of CRA-type seasoned mortgages have increased recently. Fannie Mae also started another pilot program in 1998 where they purchase CRA loans on a flow basis, as they are originated. Results from this four-year $2 billion nationwide pilot should begin to be reflected in the 1999 production data.

c. Potential Homebuyers

While the growth in affordable lending and homeownership has been strong in recent years, attaining this Nation's housing goals will not be possible without tapping into the vast pool of potential homebuyers. The National Homeownership Strategy has set a goal of achieving a homeownership rate of 67.5 percent by the end of the year 2000. Due to the aging of the baby boomers, this rate reached an annual record of 66.3 percent in 1998, and should rise to 67 percent by 2000. Thus the Strategy's target will require an increase in homeownership above and beyond that resulting from current demographic trends.

The Urban Institute estimated in 1995 that there was a large group of potential homebuyers among the renter population who were creditworthy enough to qualify for homeownership.[79] Of 20.3 million renter households having low-or moderate-incomes, roughly 16 percent were better qualified for homeownership than half of the renter households who actually did become homeowners over the sample period. When one also considered their likelihood of

[70] The percentages reported in Table A.1a for the year 1998 are similar; in that year, low-income borrowers accounted for 49.1 percent of FHA-insured loans, 24.3 percent of GSE purchases, and 27.8 percent of mortgages originated in the conventional conforming market.

[71] FHA, which focuses on first-time homebuyers and low down payment loans, experiences higher mortgage defaults than conventional lenders and the GSEs. Still, the FHA system is actuarially sound because it charges an insurance premium that covers the higher default costs.

[72] FHA's role in the market is particularly important for African-American and Hispanic borrowers. As shown in Table A.2, FHA insured 44 percent of all 1997 home loan originations for these borrowers.

[73] See Green and Associates. *Fair Lending in Montgomery County: A Home Mortgage Lending Study,* a report prepared for the Montgomery County Human Relations Commission, (March 1998).

[74] However, as shown in Table A.1a, depository institutions resemble other conventional lenders in their relatively low level of originating loans for African-American, Hispanic and minority borrowers.

[75] For an analysis of the impact of CRA agreements signed by lending institutions, see Alex Schwartz, "From Confrontation to Collaboration? Banks, Community Groups, and the Implementation of Community Reinvestment Agreements", *Housing Policy Debate,* 9(3), (1998), pp. 631–662.

[76] "With Securities Market Back on Track, Analysts Expect Surge in CRA Loan Securitization in 1999," *Inside MBS & ABS.* (February 19, 1999), pp. 11–12.

[77] *Inside MBS & ABS.* (February 19, 1999), p. 12.

[78] Fannie Mae. *1997 Annual Housing Activities Report,* (1998), p. 28.

[79] George Galster, Laudan Y. Aron, Peter Tatain and Keith Watson. *Estimating the Size, Characteristics, and Risk Profile of Potential Homebuyers.* Washington: The Urban Institute, (1995). Report Prepared for the Department of Housing and Urban Development.

defaulting relative to the average expected for those who actually moved into homeownership, 10.6 percent, or 2.15 million, low- and moderate-income renters were better qualified for homeownership, assuming the purchase of a home priced at or below median area home price. These results indicate the existence of a significant lower-income population of low-risk potential homebuyer households that might become homeowners with continuing outreach efforts by the mortgage industry.

Other surveys conducted by Fannie Mae indicate that renters desire to become homeowners, with 60 percent of all renters indicating in the July 1998 National Housing Survey that buying a home ranks from being a ''very important priority'' to their ''number-one priority,'' the highest level found in any of the seven National Housing Surveys dating back to 1992. Immigration is expected to be a major source of future homebuyers—Fannie Mae's 1995 National Housing Survey reported that immigrant renter household were 3 times as likely as renter households in general to list home purchase as their ''number-one priority.''

The achievement of the National Homeownership Strategy goal for homeownership in 2000 also depends on whether or not recent gains in the homeowning share of specific groups are maintained. The Joint Center for Housing Studies has pointed out that minorities account for only 17 percent of all homeowners, but were responsible for 42 percent of the 4 million increase in the number of homeowners between 1994 and 1997. Minority demand for homeownership continues to be high, as reported by the Fannie Mae Foundation's April 1998 Survey of African Americans and Hispanics. For example, 38 percent of African Americans surveyed said it is fairly to very likely that they will buy a home in the next 3 years, compared with 25 percent in 1997.[80] The survey also reports that 67 percent of African Americans and 65 percent of Hispanics cite homeownership as being a ''very important priority'' or ''number-one priority.''[81]

The Joint Center for Housing Studies has stated that if favorable economic and housing market trends continue, and if additional efforts to target mortgage lending to low-income and minority households are made, the homeownership rate could reach 70 percent by 2010.

d. Automated Mortgage Scoring

This, and the following two sections, discuss special topics that have, in recent years, impacted the primary and secondary mortgage markets. They are automated mortgage scoring, subprime loans and manufactured housing.

Automated mortgage scoring was developed as a high-tech tool with the purpose of identifying credit risks in a more efficient manner. As time and cost are reduced by the automated system, more time can be devoted by underwriters to qualifying marginal loan applicants that are referred by the automated system for more intensive review. Fannie Mae and Freddie Mac are in the forefront of new developments in automated mortgage scoring technology. Both enterprises released automated underwriting systems in 1995-Freddie Mac's Loan Prospector and Fannie Mae's Desktop Underwriter. Each system uses numerical credit scores, such as those developed by Fair, Isaac, and Company, and additional data submitted by the borrower, such as loan-to-value ratios and available assets, to calculate a mortgage score that evaluates the likelihood of a borrower defaulting on the loan. The mortgage score is in essence a recommendation to the lender to accept the application, or to refer it for further review through manual underwriting. Accepted loans benefit from reduced document requirements and expedited processing.

Along with the promise of benefits, however, automated mortgage scoring has raised concerns. These concerns are related to the possibility of disparate impact and the proprietary nature of the mortgage score inputs. The first concern is that low-income and minority homebuyers will not score well enough to be accepted by the automated underwriting system resulting in fewer getting loans. The second concern relates to the ''black box'' nature of the scoring algorithm. The scoring algorithm is proprietary and therefore it is difficult, if not impossible, for applicants to know the reasons for their scores.

Federal Reserve Study. Four economists at the Board of Governors of the Federal Reserve System have recently released a conceptual and empirical study on the use of credit scoring systems in mortgage lending.[82] Their broad assessment of the models is that [C]redit scoring is a technological innovation which has increased the speed and consistency of risk assessment while reducing costs. Research has uniformly found that credit history scores are powerful predictors of future loan performance. All of these features suggest that credit scoring is likely to benefit both lenders and consumers.''[83]

The authors evaluate the current state-of-the-art of development of credit scoring models, focusing particularly on the comprehensiveness of statistical information used to develop the scoring equations. They present a conceptual framework in which statistical predictors of default include regional and local market conditions, individual credit history, and applicants' characteristics other than credit history. The authors observe that the developers of credit scoring models have tended to disregard regional and local market conditions in model construction, and such neglect may tend to reduce the predictive accuracy of scoring equations. To determine the extent of the problem, they analyzed Equifax credit scores together with mortgage payment history data for households living in each of 994 randomly selected counties from across the country. The authors use these data to assess the variability of credit scores relative to county demographic and economic characteristics.

The authors find a variety of pieces of evidence which confirm their suspicions: Credit scores tended to be relatively lower in areas with relatively high county unemployment rates, areas that have experienced recent rises in unemployment rates, areas with high minority population, areas with lower median educational attainment, areas with high percentages of individuals living in poverty, areas with low median incomes and low house values, and areas with relatively high proportions of younger populations and lower proportions of older residents.

This analysis suggests the need for a two-step process of improvement of the equations and their application, in which (a) new statistical analyses would be performed to incorporate the omitted environmental variables, and (b) additional variables bearing on individuals' prospective and prior circumstances will be taken into account in determining their credit scores.

These authors also discuss the relationship between credit scoring and discrimination. They find a significant statistical relationship between credit history scores and minority composition of an area, after controlling for other locational characteristics. From this, they conclude that concerns about potential disparate impact merit future study. However, a disparate impact study must include a business justification analysis to demonstrate the ability of the score card to predict defaults and an analysis of whether any alternative, but equally-predictive, score card has a less disproportionate effect.

Urban Institute Study. The Urban Institute recently submitted a report to HUD on a four-city reconnaissance study of issues related to the single-family underwriting guidelines and practices of Fannie Mae and Freddie Mac.[84] The study included interviews with informants knowledgeable about mortgage markets and GSE business practices on the national level and in the four cities.

The study observes, as did the Fed study summarized above, that minorities are more likely than whites to fail underwriting guidelines. Therefore, as a general matter the GSEs' underwriting guidelines—as well as the underwriting guidelines of others in the industry—do have disproportionate adverse effects on minority loan applicants.[85]

Based on the field reconnaissance in four metropolitan housing markets, the study makes several observations about the operation of credit scoring systems in practice, as follows:[86]

(i) Credit scores are used in mortgage underwriting to separate loans that must be

[80] Fannie Mae Foundation. *African American and Hispanic Attitudes on Homeownership: A Guide for Mortgage Industry Leaders,* (1998), p. 3.

[81] Fannie Mae Foundation. (1998), p. 14.

[82] Robert B. Avery, Raphael W. Bostic, Paul S. Calem, and Glenn B. Canner, *Credit Scoring: Issues and Evidence from Credit Bureau Files,* mimeo., (1998).

[83] Avery *et al.* (1998), p. 24.

[84] Kenneth Temkin, Roberto Quercia, George Galster, and Sheila O'Leary, *A Study of the GSEs' Single Family Underwriting Guidelines: Final Report.* Washington DC: U.S. Department of Housing and Urban Development, (April 1999). This study involves an analysis of the GSEs' underwriting guidelines in general. This section reviews only the aspects of the study related to mortgage scoring. A broader review of this paper is provided below in section E.4.

[85] Temkin, *et al.* (1999), p.2.

[86] Temkin, *et al.* (1999), p. 5; pp. 26–27.

referred to loan underwriters from loans that may be forwarded directly to loan officers; for example, a 620 score was mentioned by some respondents as the line below which the loan officer must refer the loan for manual underwriting. It is very difficult for applicants with low credit scores to be approved for a mortgage, according to the lenders interviewed by the Urban Institute.

(ii) Some respondents believe the GSEs are applying cutoffs inflexibly, while others believe that lenders are not taking advantage of flexibility allowed by the GSEs.

(iii) Some respondents believe that credit scores may not be accurate predictors of loan performance, despite the claims of users of these scores. Respondents who voiced this opinion tended to base these observations on their personal knowledge of low-income borrowers who are able to keep current on payments, rather than on an understanding of statistical validation studies of the models.

(iv) Respondents indicate that the ''black box'' nature of the credit scoring process creates uncertainty among loan applicants and enhances the intimidating nature of the process for them.

Based on these findings, the authors conclude that ''the use of automated underwriting systems and credit scores may place lower-income borrowers at a disadvantage when applying for a loan, even though they are acceptable credit risks.''

The report includes several recommendations for ongoing HUD monitoring of the GSEs' underwriting including their use of credit scoring models. One suggestion is to develop a data base on the GSEs' lending activities relevant for analysis of fair lending issues. The data would include credit scores to reveal the GSEs' patterns of loan purchase by credit score. A second suggestion is to conduct analyses of the effects of credit scoring systems using a set of ''fictitious borrower profiles'' that would reveal how the systems reflect borrower differences in income, work history, credit history, and other relevant factors. HUD has begun following up on the Urban Institute's recommendations. For instance, in February 1999, HUD requested the information and data needed to analyze the GSEs' automated underwriting systems.

Concluding Observation. It is important to note that both of the studies reviewed above comment on the problem of correlation of valid predictors of default (income, etc.) with protected factors (race, etc.). Both studies suggest that, ultimately, the question whether mortgage credit scoring models raise any problems of legal discrimination based on disparate effects would hinge on a business necessity analysis and analysis of whether any alternative underwriting procedures with less adverse disproportionate effect exist.

e. Subprime Loans

Another major development in housing finance has been the recent growth in subprime loans. In the past borrowers traditionally obtained an ''A'' quality (or ''investment grade'') mortgage or no mortgage. However, an increasing share of recent borrowers have obtained ''subprime'' mortgages, with their quality denoted as ''A-minus,'' ''B,'' ''C,'' or even ''D.'' The subprime borrower typically is someone who has experienced credit problems in the past or has a high debt-to-income ratio.[87] Through the first nine months of 1998, ''A-minus'' loans accounted for 63 percent of the subprime market, with ''B'' loans representing 24 percent and ''C'' and ''D'' loans making up the remaining 13 percent.[88]

Because of the perceived higher risk of default, subprime loans typically carry mortgage rates that in some cases are substantially higher than the rates on prime mortgages. While in many cases these perceptions about risk are accurate, some housing advocates have expressed concern that there are a number of cases in which the perceptions are actually not accurate. The Community Reinvestment Association of North Carolina (CRA*NC), conducted a study based on HMDA data, records of deeds, and personal contacts with effected borrowers in Durham County, NC. They found that subprime lenders make proportionally more loans to minority borrowers and in minority neighborhoods than to whites and white neighborhoods at the same income level. African-American borrowers represent 20 percent of subprime mortgages in Durham County, but only 10 percent of prime market.[89] As a result, these borrowers can end up paying very high mortgage rates that more than compensate for their additional risks to lenders. High subprime mortgage rates make homeownership more expensive or force subprime borrowers to buy less desirable homes than they would be able to purchase if they paid lower prime rates on their mortgages.

The HMDA database does not provide information on interest rates, points, or other loan terms that would enable researchers to separate more expensive subprime loans from other loans. However, the Department has identified 200 lenders that specialize in such loans, providing some information on the growth of this market.[90] This data shows that mortgages originated by subprime lenders, and reported to HMDA, has increased from 104,000 subprime loans in 1993 to 210,000 in 1995 and 997,000 in 1998. Most of the subprime loans reported to HMDA are refinance loans; for example, refinance loans accounted for 80 percent of the subprime loans reported by the specialized subprime lenders in 1997.

An important question is whether borrowers in the subprime market are sufficiently creditworthy to qualify for more traditional loans. Freddie Mac has said that one of the promises of automated underwriting is that it might be better able to identify borrowers who are unnecessarily assigned to the high-cost subprime market. It has estimated that 10–30 percent of borrowers who obtain mortgages in the subprime market could qualify for a conventional prime loan through Loan Prospector, its automated underwriting system.[91]

Most of the subprime loans that were purchased by the GSEs in past years were purchased through structured transactions. Under this form of transaction, whole groups of loans are purchased, and not all loans necessarily meet the GSEs' traditional underwriting guidelines. The GSEs typically guarantee the so-called ''A'' tranche, which is supported by a ''B'' tranche that covers default costs.

An expanded GSE presence in the subprime market could be of significant benefit to lower-income families, minorities, and families living in underserved areas. HUD's research shows that in 1998: African-Americans comprised 5.0 percent of market borrowers, but 19.4 percent of subprime borrowers; Hispanics made up 5.2 percent of market borrowers, but 7.8 percent of subprime borrowers; very low-income borrowers accounted for 12.1 percent of market borrowers, but 23.3 percent of subprime borrowers; and borrowers in underserved areas amounted to 24.8 percent of market borrowers, but 44.7 percent of subprime borrowers.[92]

Most subprime borrowers are classified as ''A-minus,'' which means that they are slightly below investment grade due to the borrower's past credit problems. Freddie Mac has developed initiatives to allow its Seller/Servicers using Loan Prospector to sell them ''A-minus'' loans. In April 1999 Freddie Mac began a purchasing ''A-minus'' loans with prepayment penalties on a flow basis and has provided guarantees for the senior portions of mortgage securitizations backed in part by B and C loans.[93] Freddie Mac hopes that the information gleaned from these initiatives will enable it to study the performance of subprime loans and enhance its ability to provide financing in this market. One concern Freddie Mac has is that as the GSEs get deeply involved in the subprime market,

[87] Standard & Poor's B and C mortgage guidelines can be used to illustrate that underwriting criteria in the subprime market becomes more flexible as the grade of borrower moves from the most creditworthy A-borrowers to the riskier D borrowers. For example, the A-grade borrower is allowed to be delinquent 30 days on his mortgage twice in the last year whereas the D grade borrower is allowed to be delinquent 30 days on his mortgage credit five times in the last year. Moreover, the A-borrower is permitted to have a 45 percent debt-to-income ratio compared to the D grade borrower's 60 percent.

[88] ''Subprime Product Mix, Strategies Changed During a Turbulent 1998,'' *Inside B&C Lending.* (December 21, 1998), p. 2.

[89] ''Renewed Attack on 'Predatory' Subprime Lenders.'' *Fair Lending/CRA Compass,* (June 1999) and http://cra-cn.home.mindspring.com.

[90] See Randall M. Scheessele. *1998 HMDA Highlights,* Housing Finance Working Paper HF–009, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (October 1999). Nonspecialized lenders such as banks and thrifts also make subprime loans, but no data is available to estimate the number of these loans.

[91] Freddie Mac, *We Open Doors for America's Families,* Freddie Mac's Annual Housing Activities Report for 1997, (March 16, 1998), p. 23.

[92] The statistics cited for the ''market'' refer to all conforming conventional mortgages (both home purchase and refinance). The data for the subprime market are for 200 lenders that specialize in such loans; see Scheessele, op. cit.

[93] ''Freddie Mac Begins Buying A-Loans With Prepay Penalties,'' *Inside Mortgage Finance.* (May 21, 1999), p. 9; and ''Democratic Senator Suggests Fannie and Freddie Could Improve Subprime Mortgage Market,'' *Inside Mortgage Finance.* (June 25, 1999), pp. 5–6.

and if they take on a first-loss position, servicing quality might erode.[94]

Fannie Mae has not been as involved in the subprime market as Freddie Mac to date, but it has expressed its intent to fully enter the ''A-minus'' market over the next several years.[95] During 1998, Fannie Mae approximates that it purchased $10 billion in ''Alt-A'' loans, about a quarter of that market. In September 1999, Fannie Mae announced the availability of the ''Timely Payment Rewards'' mortgage. Under this product, borrowers who qualify but have slightly impaired credit are eligible for a mortgage with a higher rate than the standard conventional mortgage. After 24 months of paying the mortgage on time, the borrower is guaranteed a one percent interest rate reduction.[96] Fannie Mae sees its Desktop Underwriter automated underwriting system and other technology initiatives as the keys which will enable it to manage credit risk of such loans in a manner that allows a greatly expanded presence in the subprime market.

Increased involvement by the GSEs in the subprime market will result in more standardized underwriting guidelines. As the subprime market becomes more standardized, market efficiencies will reduce borrowing costs. Lending to credit-impaired borrowers will, in turn, increasingly make good business sense for the mortgage market.

f. Loans on Manufactured Housing

Manufactured housing provides low-cost, basic-quality housing for millions of American households, especially younger, lower-income families in the South, West, and rural areas of the nation. Many households living in manufactured housing because they simply cannot afford site-built homes, for which the construction cost per square foot is much higher. Because of its affordability to lower-income families, manufactured housing is one of the fastest-growing parts of the American housing market.[97]

The American Housing Survey found that 15.5 million people lived in 7 million manufactured homes in the United States in 1995, and that such units accounted for 6.3 percent of the housing stock, an increase from 5.4 percent in 1985. Shipments of manufactured homes rose steadily from 171,000 units in 1991 to 373,000 units in 1998. The industry grew much faster over this period in sales volume, from $4.7 billion in 1991 to $16.4 billion in 1998, reflecting both higher sales prices and a major shift from single-section homes to multisection homes, which contain two or three units which are joined together on site.[98]

Despite their eligibility for mortgage financing, only about 10–20 percent of manufactured homes [99] are financed with mortgages secured by the property, even though half of owners hold title to the land on which the home is sited. Most purchasers of manufactured homes take out a personal property loan on the home and, if they buy the land, a separate loan to finance the purchase of the land.

In 1995 the average loan size for a manufactured home was $24,500, with a 15 percent down payment and term of 13 years. Rates averaged about 3 percentage points higher than those paid on 15-year fixed rate mortgages, but borrowers benefit from very rapid loan-processing and underwriting standards that allow high debt payment-to-income (''back-end'') ratios.

Traditionally loans on manufactured homes have been held in portfolio, but a secondary market has emerged since trading of asset-backed securities collateralized by manufactured home loans was initiated in 1987. Investor interest has been reported as strong due to reduced loan losses, low prepayments, and eligibility for packaging of such loans into real estate mortgage investment conduits (REMICs). The GSEs' underwriting standards allow them to buy loans on manufactured homes that meet the HUD construction code, if they are owned, titled, and taxed as real estate.

The GSEs are beginning to expand their roles in the manufactured home loan market.[100] A representative of the Manufactured Housing Institute has stated that ''Clearly, manufactured housing loans would fit nicely into Fannie Mae's and Freddie Mac's affordable housing goals.'' [101] Given that manufactured housing loans often carry relatively high interest rates, an enhanced GSE role could also improve the affordability of such loans to lower-income families.

D. Factor 2: Economic, Housing, and Demographic Conditions: Multifamily Mortgage Market

Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, although not to the same degree as the single-family mortgage market. In 1997, 34 percent of multifamily mortgage originations were securitized, compared with 50 percent of single-family originations.[102]

Loans on multifamily properties are typically viewed as riskier than their single-family counterparts. Property values, vacancy rates, and market rents in multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced in the single-family market.

Within much of the single-family mortgage market, the GSEs occupy an undisputed position of industrywide dominance, holding loans or guarantees with an unpaid principal balance (UPB) of $1.5 trillion, comprising 36 percent of $4.0 trillion in outstanding single-family mortgage debt as of the end of 1997. In multifamily, the overall market presence of the GSEs is more modest. At the end of 1997, the GSEs direct holdings and guarantees were $41.4 billion, representing 13.8 percent of $301 billion in outstanding multifamily mortgage debt.[103] Based on market origination volume estimated at $40.7 billion, GSE acquisitions during 1997 represented 24 percent of the conventional multifamily market.[104]

1. Special Issues and Unmet Needs

Recent studies have documented a pressing unmet need for affordable housing. For

[94] ''Subprime Mortgage Market Nervously Makes Room for Government-Sponsored Enterprises,'' *Inside Mortgage Finance.* (February 19, 1999), p. 5–6.

[95] Fannie Mae's plans regarding its entry into the A-minus and ''Alternative-A'' (Alt-A) markets are discussed in ''Fannie Mae to Fully Enter Alt-A Market in Two Years,'' Origination News, November 1998, p. 33. The Alt-A market generally involves conforming size mortgages made to A quality borrowers that fall outside Fannie Mae's or Freddie Mac's purchase requirements due to lack of documentation, the property type, loan-to-value ratio, or a combination of the three.

[96] Fannie Mae press release, (September 30, 1999).

[97] A detailed discussion of manufactured housing is contained in Kimberly Vermeer and Josephine Louie, *The Future of Manufactured Housing,* Joint Center for Housing Studies, Harvard University, (January 1997).

[98] Data on industry shipments and sales has been obtained from ''U.S. Housing Market Conditions,'' U.S. Department of Housing and Urban Development (May, 1999), p. 51.

[99] Although the terms are sometimes used interchangeably, manufactured housing and mobile homes differ in significant ways relative to construction standards, mobility, permanence, and financing (These distinctions are spelled out in detail in Donald S. Bradley, ''Will Manufactured Housing Become Home of First Choice?'' *Secondary Mortgage Markets,* (July 1997)). Mobile homes are not covered by national construction standards, though they may be subject to State or local siting requirements. Manufactured homes must be built according to the National Manufactured Housing Construction Safety and Standards Act of 1974. In accordance with this act, HUD developed minimum building standards in 1976 and upgraded them in 1994. Manufactured homes, like mobile homes, are constructed on a permanent chassis and include both axles and wheels. However, with manufactured housing, the axles and wheels are intended to be removed at the time the unit is permanently affixed to a foundation. Manufactured homes, unlike mobile homes, are seldom, if ever, moved. Mobile homes are financed with personal property loans, but manufactured homes are eligible for conventional-mortgage financing if they are located on land owned by or under long-term lease to the borrower. Other types of factory-built housing, such as modular and panelized homes, are not included in this definition of ''manufactured housing.'' These housing types are often treated as ''site built'' for purposes of eligibility for mortgage financing.

[100] Freddie Mac, the Manufactured Housing Institute and the Low Income Housing Fund have formed an alliance to utilize manufactured housing along with permanent financing and secondary market involvement to bring affordable, attractive housing to underserved, low- and moderate-income urban neighborhoods. *Origination News.* (December 1998), p.18.

[101] *Mortgage-Backed Securities Letter.* (September 7, 1998), p. 3.

[102] *The Mortgage Market Statistical Annual for 1998* (Washington, DC: Inside Mortgage Finance Publications), 203, 425; *U.S. Housing Market Conditions* (November 1998), Table 17.

[103] *Federal Reserve Bulletin,* June 1998, A 35. The comparable figure for year-end 1992, before the interim housing goals took effect, was 10.5 percent. (Federal Reserve Bulletin, (December 1993), A 38.)

[104] Mortgages acquired by the GSEs during 1997 include some seasoned loans originated before 1997, but, recognizing that it is likely that the GSE will purchase some 1997 acquisitions in later years, the 24 percent figure provides a fairly good indicator of the magnitude of the GSEs' multifamily presence that year . GSE multifamily market share appears to have risen significantly, to approximately 38 percent, in 1998. The size of the conventional multifamily market is discussed in Appendix D.

example, the Harvard University Joint Center for Housing Studies, in its report *State of the Nation's Housing 1997,* points out that:

(i) Despite the recent growth in homeownership rates, the absolute number of households without access to affordable housing is growing because the rental stock is not keeping up with the growth in household formation. ''Homeownership is more affordable today than during much of the 1980s and early 1990s,'' but renter households ''have received no comparable relief from high housing costs.''

(ii) The affordable stock continues to shrink as losses due to abandonment and demolition have outpaced the rate at which units filter down into the low cost stock. Reductions in federal subsidies may contribute to further losses in the affordable stock.

(iii) The problems of extremely low-income households remains the largest and most urgent priority. The number of families receiving rental subsidies has actually decreased.[105]

The affordable housing issues go beyond the need for greater efficiency in delivering capital to the rental housing market. In many cases, subsidies are needed in order for low-income families to afford housing that meets adequate occupancy and quality standards. Nevertheless, greater access to reasonably priced capital can reduce the rate of losses to the stock, and can help finance the development of new or rehabilitated affordable housing when combined with locally funded subsidies. Development of a secondary market for affordable housing is one of many tools needed to address these issues.

Recent scholarly research suggests that more needs to be done to develop the secondary market for affordable multifamily housing.[106] Cummings and DiPasquale (1998) point to the numerous underwriting, pricing, and capacity building issues that impede the development of this market. They suggest the impediments can be addressed through the establishment of affordable lending standards, better information, and industry leadership.

(i) More consistent standards are especially needed for properties with multiple layers of subordinated financing (as is often the case with affordable properties allocated Low Income Housing Tax Credits and/or local subsidies).

(ii) More comprehensive and accurate information, particularly with regard to the determinants of default, can help in setting standards for affordable lending.

(iii) Leadership from the government or from a GSE is needed to develop consensus standards; it would be unprofitable for any single purely private lender to provide because costs would be borne privately but competitors would benefit.

2. Underserved Market Segments

There is evidence that segments of the multifamily housing stock have been affected by costly, difficult, or inconsistent availability of mortgage financing. Small properties with 5–50 units represent an example. The fixed-rate financing that is available is typically structured with a 5–10 year term, with interest rates as much as 150 basis points higher than those on standard multifamily loans, which may have adverse implications for affordability.[107] This market segment appears to be dominated by thrifts and other depositories who keep these loans in portfolio. In part to hedge interest rate risk, loans on small properties are often structured as adjustable-rate mortgages.

Multifamily properties with significant rehabilitation needs have experienced difficulty in obtaining mortgage financing. Properties that are more than 10 years old are typically classified as ''C'' or ''D'' properties, and are considered less attractive than newer properties by many lenders and investors.[108] Fannie Mae's underwriting guidelines for negotiated transactions state that ''the Lender is required to use a more conservative underwriting approach'' for transactions involving properties 10 or more years old.[109] Fannie Mae funding for rehabilitation projects is generally limited to $6,000 per unit.[110] Multifamily rehabilitation loans account for 1.9 percent of units backing Freddie Mac 1998 purchases. Rehabilitation loans accounted for only 0.5 percent of units backing Fannie Mae's purchases that year.

Historically, the flow of capital into housing for seniors has been characterized by a great deal of volatility. A continuing lack of long-term, fixed-rate financing jeopardizes the viability of a number of some properties. There is evidence that financing for new construction remains scarce.[111] Both Fannie Mae and Freddie Mac offer Senior Housing pilot programs.

Under circumstances where mortgage financing is difficult, costly, or inconsistent, GSE intervention may be desirable. Follain and Szymanoski (1995) say that ''a [market] failure occurs when the market does not provide the quantity of a particular good or service at which the marginal social benefits of another unit equal the marginal social costs of producing that unit. In such a situation, the benefits to society of having one more unit exceeds the costs of producing one more unit; thus, a rationale exists for some level of government to intervene in the market and expand the output of this good.'' [112] It can be argued that the GSEs have the potential to contribute to the mitigation of difficult, costly, or inconsistent availability of mortgage financing to segments of the multifamily market because of their funding cost advantage, and even a responsibility to do so as a consequence of their public missions, especially in light of the limitations on direct government resources available to multifamily housing in today's budgetary environment.

3. Recent History and Future Prospects in Multifamily

The expansion phase of the real estate cycle been well underway for several years now, at least insofar as it pertains to multifamily. Rental rates have been rising, and vacancy rates have been relatively stable, contributing to a favorable environment for multifamily construction and lending activity.[113] Delinquencies on commercial mortgages reached an 18-year low in 1997.[114] Some analysts have warned that recent prosperity may have contributed to overbuilding in some markets and deterioration in underwriting standards.[115] A

[105] See also *Rental Housing Assistance—The Crisis Continues: The 1997 Report to Congress on Worst Case Housing Needs,* U.S. Department of Housing and Urban Development, Office of Policy Development and Research (April 1998).

[106] Jean L. Cummings and Denise DiPasquale, ''Developing a Secondary Market for Affordable Rental Housing: Lessons From the LIMAC/Freddie Mac and EMI/Fannie Mae Programs,'' Cityscape: A Journal of Policy Development and Research, 4(1), (1998), pp. 19–41.

[107] Drew Schneider and James Follain assert that interest rates on small property mortgages are as high as 300 basis points over comparable maturity Treasuries in ''A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing,'' *Cityscape: A Journal of Policy Development and Research* 4(1): 43–58, 1998. Berkshire Realty, a Fannie Mae Delegated Underwriting and Servicing (DUS) lender based in Boston, was quoting spreads of 135 to 150 basis points in ''Loans Smorgasbord,'' Multi-Housing News, August–September 1996. Additional information on the interest rate differential between large and small multifamily properties is contained in William Segal and Christopher Herbert, *Segmentation of the Multifamily Mortgage Market: The Case of Small Properties,* paper presented to annual meetings of the American Real Estate and Urban Economics Association, (January 2000).

[108] On the relation between age of property and quality classification see Jack Goodman and Brook Scott, ''Rating the Quality of Multifamily Housing,'' *Real Estate Finance,* (Summer, 1997).

[109] *Fannie Mae Multifamily Negotiated Transactions Guide,* Section 305.03, ''Properties More than Ten Years Old.''

[110] *Fannie Mae Multifamily Delegated Underwriting and Servicing Guide,* Section 306.01, ''Definition—Moderate Rehabilitation Property.'' Loans involving rehabilitation costs exceeding $6,000 per unit may be approved on an exception basis, but in no event may rehabilitation costs exceeds $10,000 per unit or 25 percent of the loan amount, whichever is lower. In October, 1998 Fannie Mae announced a rehabilitation lending initiative providing up to $15,000 per on the condition that all units financed are affordable to low- and moderate income tenants.

[111] W. Donald Campbell. *Seniors Housing Finance,* prepared for American Association of Retired Persons White House Conference on Aging Mini-Conference on Expanding Housing Choices for Older People, (January 26–27, 1995).

[112] James R. Follain and Edward J. Szymanoski. ''A Framework for Evaluating Government's Evolving Role in Multifamily Mortgage Markets,'' *Cityscape: A Journal of Policy Development and Research* 1(2), (1995), p. 154.

[113] Despite sustained economic expansion, however, the rise in homeownership, has not fallen below 9 percent in recent years. (Regis J. Sheehan, ''Steady Growth,'' *Units,* (November/December 1998), pp. 40–43). Regarding rents and vacancy rates see also Ted Cornwell. ''Multifamily Lending Approaches Record Level,'' *National Mortgage News,* (September 23, 1996); and David Berson, Monthly Economic and Mortgage Market Report, Fannie Mae, (November 1998).

[114] American Council of Life Insurance data reported in *Inside MBS & ABS,* (March 20, 1998).

[115] A November, 1998 ''Review of the Short-Term Supply/Demand Conditions for Apartments'' by Peter P. Kozel of Standard and Poor's concludes that ''in some markets, the supply of units exceeds the likely level of demand, and in only a few MSAs should the pace of development accelerate.'' See also ''Apartment Projects Find Lenders Are Ready with Financing,'' Lew Sichelman, *National*

September, 1998 report by the Office of the Comptroller of the Currency anticipates continued decline in credit standards at the 77 largest national banks as a consequence of heightened competition between lenders, and the Federal Deposit Insurance Corporation has expressed similar concerns regarding 1,212 banks it examined.[116]

Growth in the multifamily mortgage market has been fueled by investor appetites for Commercial Mortgage Backed Securities (CMBS). Nonagency securitization of multifamily and commercial mortgages received an initial impetus from the sale of nearly $20 billion in mortgages acquired by the Resolution Trust Corporation (RTC) from insolvent depositories in 1992–1993. Nonagency issuers typically enhance the credit-worthiness of their offerings through the use of senior-subordinated structures, combining investment-grade senior tranches with high-yield, below investment-grade junior tranches designed to absorb any credit losses.[117]

Because of their relatively low default risk in comparison with loans on other types of income property, multifamily mortgages are often included in mixed-collateral financing structures including other commercial property such as office buildings, shopping centers, and storage warehouses. CMBS volume reached $30 billion in 1996, $44 billion in 1997, and $78 billion in the 1998, approximately 25 percent of which was multifamily.[118]

During the financial markets turmoil in the fall of 1998, investors expressed reluctance to purchase the subordinated tranches in CMBS transactions, jeopardizing the ability of issuers to provide a cost-effective means of credit-enhancing the senior tranches as well.[119] When investor perceptions regarding credit risk on subordinated debt escalated rapidly in August and September, the GSEs, which do not typically use subordination as a credit enhancement, benefited from a ''flight to quality.''[120] As spreads on AAA-rated CMBS widened from 85 basis points to 200 basis points over to comparable-maturity Treasury securities, some conduits found it advantageous to sell whole loans to the life insurance companies, the GSEs, and other traditional investors rather than securitize them directly as they had originally planned.[121] The withdrawal from the market of a number of the three largest CMBS originators, Nomura/Capital America, Conti-Trade Services and Daiwa Securities will contribute to higher levels of GSE multifamily market share on a continuing basis.[122] Ultimately, the relation between GSE and CMBS yield spreads will be a major determinant of GSE multifamily market share.[123] Continuing uncertainty in the CMBS sector adds a note of uncertainty to projections regarding GSE multifamily acquisition volume in Appendix D.

Depository institutions and life insurance companies, formerly among the largest holders of multifamily debt, have experienced a decline in their share of the market at the expense of CMBS conduits.[124] Increasingly, depositories and life insurance companies are participating in multifamily markets by holding CMBS rather than whole loans, which are often less liquid, more expensive, and subject to more stringent risk-based capital standards.[125] In recent years a rising proportion of multifamily mortgages have been originated to secondary market standards, a consequence of a combination of factors including the establishment of a smoothly functioning securitization ''infrastructure;'' the greater liquidity of mortgage-related securities as compared with whole loans; and the desire for an ''exit strategy'' on the part of investors.[126]

Because of their limited use of mortgage debt, increased equity ownership of multifamily properties by REITs may have contributed to increased competition among mortgage originators, servicers and investors for a smaller mortgage market than would otherwise exist. During the first quarter of 1997, REITs accounted for 45 percent of all commercial real estate transactions, and the market capitalization of REITs at the end of January 1998 exceeded that of outstanding CMBS.[127]

Demographic factors will contribute to continued steady growth in the new construction segment of the multifamily mortgage market. The number of apartment households is expected to grow approximately 1.1 percent per year over 2000–2005. Taking into consideration losses from the housing stock, it has been projected that approximately 250,000–275,000 additional multifamily units will be needed in order to meet anticipated demand.[128] This flow is approximately half that of the mid-1980s, but twice that of the depressed early 1990s. In 1998, 273,900 apartment units were completed.[129]

The high degree of volatility of multifamily new construction experienced historically is consistent with a view that this sector of the housing market is driven more by fluctuations in the availability of financing than by demographic fundamentals. The stability and liquidity of the housing finance system is therefore a significant determinant of whether the volume of new construction remains consistent with demand.

Past experience suggests that the availability of financing for all forms of commercial real estate is highly sensitive to the state of the economy. In periods of economic uncertainty, lenders and investors sometimes raise underwriting and credit standards to a degree that properties that would be deemed creditworthy under normal circumstances are suddenly unable to obtain financing. Ironically, difficulty in obtaining financing may contribute to a fall in property values that can exacerbate a credit crunch.[130]

Mortgage News, (April 14, 1997); *Commercial Lenders Warned That They Could Spur Overbuilding, National Mortgage News,* (March 30, 1998); ''Multifamily, Commercial Markets Grow Up,'' Neil Morse, *Secondary Marketing Executive,* (February 1998);'' ''Recipe for Disaster,'' *National Mortgage News* editorial, (July 6, 1998).

[116] *1998 Survey of Credit Underwriting Practices,* Comptroller of the Currency, National Credit Committee. ''For the fourth consecutive year, underwriting standards for commercial loans have eased,'' states the OCC report. ''Examiners again cite competitive pressure as the primary reason for easing underwriting standards.'' The weakening of underwriting practices is especially concentrated in commercial real estate lending according to a the Federal Deposit Insurance Corporation's Report on *Underwriting Practices,* (October 1997–March 1998). See also Donna Tanoue, ''Underwriting Concerns Grow,'' *National Mortgage News,* (September 21, 1998), and ''Making the Risk-Takers Pay,'' *National Mortgage News,* (October 12, 1998).

[117] On the effects of multifamily mortgage securitization see ''Financing Multifamily Properties: A Play With new Actors and New Lines,'' Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Cityscape, A Journal of Policy Development and Research,* vol. 4, No. 1 (1998); and ''Financing Multifamily Properties,'' Donald S. Bradley, Frank E. Nothaft, and James L. Freund, Urban Land (November 1998).

[118] ''New-Issue CMBS Volume,'' *Commercial Mortgage Alert,* (October 5, 1998); Inside MBS & ABS, (February 12, 1999).

[119] ''New CMBS Headache: B-Piece Market Softens,'' *Commercial Mortgage Alert,* (September 21, 1998); ''Criimi Bankruptcy Accelerates CMBS Freefall,'' *Commercial Mortgage Alert,* (October 12, 1998); ''Capital America Halts Lending Amid Woes,'' *Commercial Mortgage Alert,* (October 12, 1998).

[120] On CMBS spreads see ''Turmoil Hikes Loan Rates'' in *Wall Street Mortgage Report,* (September 14, 1998). Regarding implications for the GSEs of the conduit pullback see ''No Credit Crunch for First Mortgages'' in *Commercial Mortgage Alert,* (October 12, 1998).

[121] Sally Gordon, ''A Lesson From the Capital Markets,'' *Mortgage Banking* Special Issue—Commercial, (February 1999), pp. 12–18.

[122] See '''99 CMBS Outlook: Fast Start, Then Lull,'' *Commercial Mortgage Alert,* (December 7, 1998); ''Chastened Conduits Get Back to Business,'' *Commercial Mortgage Alert,* (February 15, 1999). Nomura/Capital America's monthly CMBS volume had been at a level of approximately $1 billion. See also ''ContiFinancial Halts Originations, Plans Portfolio Selloff,'' *Real Estate Finance & Investment,* (November 9, 1998); and ''Nomura in US Quits CRE Lending,'' *National Mortgage News,* (December 21, 1998).

[123] CMBS yield spreads in early 1999 were approximately 75–100 basis points wider than those in the summer of 1998, but approximately 75–100 basis points narrower than the peak reached in the fall of 1998. ''Chastened Conduits Get Back to Business,'' *Commercial Mortgage Alert,* (February 15, 1999).

[124] ''Financing Multifamily Properties: A Play With New Actors and New Lines,'' Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Cityscape: A Journal of Policy Development and Research,* 4(1), (1998).

[125] *The Impact of Public Capital Markets on Urban Real Estate,* Clement Dinsmore, discussion paper, Brookings Institution Center on Urban and Metropolitan Policy, July 1998; ''Capital Availability Fuels Commercial Market Growth,'' Marshall Taylor, *Real Estate Finance Today,* (February 17, 1997).

[126] Board of Governors of the Federal Reserve System and U.S. Securities and Exchange Commission, *Report to the Congress on Markets for Small-Business- and Commercial-Mortgage-Backed Securities,* (September 1998).

[127] ''REITs Tally Nearly Half of All Big CRE Deals in First Quarter,'' *National Mortgage News,* (July 7, 1997); ''Will REITs, Mortgage-Backeds Make Difference in Downturn,'' Jennifer Goldblatt, *American Banker,* (February 18, 1998).

[128] ''Apartment Demographics: Good for the Long Haul?'' Jack Goodman, *Real Estate Finance,* (Winter 1997); ''The Multifamily Outlook,'' Jack Goodman, Urban Land, (November 1998).

[129] *U.S. Housing Market Conditions 2nd Quarter 1999,* U.S. Department of Housing and Urban Development (August 1999), Table 4.

[130] Howard Esaki, a principal in CMBS Research at Morgan Stanley Dean Witter stated recently that

Continued

The consensus viewpoint among most economists is that an economic recession in 2000 is unlikely.[131] However, the possibility of a global economic downturn cannot be dismissed.[132] The sensitivity of commercial real estate markets to investor perceptions regarding global volatility was demonstrated by the rise in CMBS spreads in September, 1998.[133] Thus, market disruptions could have adverse implications on U.S. commercial and residential mortgage markets.

4. Recent Performance and Effort of the GSEs Toward Achieving the Low- and Moderate-Income Housing Goal: Role of Multifamily Mortgages

The GSEs have rapidly expanded their presence in the multifamily mortgage market in the period since the housing goals were established in 1993. Fannie Mae has played a much larger role in the multifamily market, with purchases of $6.9 billion in 1997 compared with $2.7 billion by Freddie Mac. If Fannie Mae multifamily acquisitions maintain their recent growth rate, it appears likely that they will be successful in reaching its publicly announced goal of conducting $50 billion in multifamily transactions between 1994 and the end of the decade.[134] Fannie Mae's multifamily underwriting standards are highly influential and have been widely emulated throughout the industry. Freddie Mac has successfully rebuilt its multifamily program after a three-year hiatus during 1991–1993 precipitated by widespread defaults.

Multifamily loans represent a relatively small portion of the GSEs' business activities. For example, multifamily loans held in portfolio or guaranteed by the GSEs at the end of 1997 totaled $41.4 billion, less than 3 percent of their single-family combined portfolio and guaranteed holdings. In comparison, multifamily mortgages held or guaranteed by the GSEs represent approximately 8 percent of the overall stock of mortgage debt.[135]

However, the multifamily market contributes disproportionately to GSE purchases meeting both the Low- and Moderate-Income and Special Affordable Housing goals. In 1997, Fannie Mae's multifamily purchases represented 13.4 percent of their total acquisition volume, measured in terms of dwelling units. Yet these multifamily purchases comprised 26.7 percent of units qualifying for the Low- and Moderate Income Housing Goal, and 44.4 percent of units meeting the Special Affordable goal. Multifamily purchases were 8.2 percent of units backing Freddie Mac's 1997 acquisitions, 18.8 percent of units meeting the Low-and Moderate Income Housing Goal, and 31.4 percent of units qualifying for the Special Affordable Housing Goal.[136] The multifamily market therefore comprises a significant share of units meeting the Low- and Moderate-Income and Special Affordable Housing Goals for both GSEs, and the goals may have contributed to increased emphasis by both GSEs on multifamily in the period since the Final Rule took effect in 1995.[137]

The majority of units backing GSE multifamily transactions meet the Low- and Moderate Income Housing Goal because the great majority of rental units are affordable to families at 100 percent of median income, the standard upon which the Low- and Moderate Income Housing Goal is defined. For example, 33.3 percent of units securing Freddie Mac's 1997 one-family owner-occupied mortgage purchases met the Low- and Moderate Income Housing Goal, compared with 95.9 percent of its multifamily transactions. Corresponding figures for Fannie Mae were 33.8 percent and 85.2 percent.[138] For this reason, multifamily purchases represent a crucial component of the GSEs' efforts in meeting the Low- and Moderate Income Housing Goal.

Because such a large proportion of multifamily units qualify for the Low- and Moderate-Income Housing Goal and for the Special Affordable Housing Goal, Freddie Mac's weaker multifamily performance adversely affects its overall performance on these two housing goals relative to Fannie Mae. Units in multifamily properties accounted for 7.9 percent of Freddie Mac's mortgage purchases during 1996–1998, compared with 12.2 percent for Fannie Mae. Fannie Mae's greater emphasis on multifamily is a major factor contributing to the strength of its housing goals performance relative to Freddie Mac.

5. A Role for the GSEs in Multifamily Housing

By sustaining a secondary market for multifamily mortgages, the GSEs can extend the benefits that come from increased mortgage liquidity to many more lower-income families while helping private owners to maintain the quality of the existing affordable housing stock. In addition, standardization of underwriting terms and loan documents by the GSEs has the potential to reduce transactions costs. As the GSEs gain experience in areas of the multifamily mortgage market affected by costly, difficult, or inconsistent access to secondary markets, they gain experience that enables them to better measure and price default risk, yielding greater efficiency and further cost savings.

Ultimately, greater liquidity, stability, and efficiency in the secondary market due to a significant presence by the GSEs will benefit lower-income renters by enhancing the availability of mortgage financing for affordable rental units—in a manner analogous to the benefits the GSEs provide homebuyers. Providing liquidity and stability is the main role for the GSEs in the multifamily market, just as in the single-family market.

Current volatility in the CMBS market underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by virtue of the fact that an increasing proportion of multifamily mortgages are originated to secondary market standards, as noted previously. While the GSEs have also been affected by the widening of yield spreads affecting CMBS, historical experience suggests that agency spreads will converge to historical magnitudes as a consequence of the perceived benefits of federal sponsorship.[139] When this occurs, the capability of the GSEs to serve and compete in the multifamily secondary market will be enhanced.[140]

6. Multifamily Mortgage Market: GSEs' Ability To Lead the Industry

Holding 9.8 percent of the outstanding stock of multifamily mortgage debt and guarantees as of the end of 1997, Fannie Mae is regarded as an influential force within the multifamily market. Its Delegated Underwriting and Servicing (DUS) program, in which Fannie Mae delegates underwriting responsibilities to originators in return for a commitment to share in any default risk, now accounts for more than half its multifamily acquisitions, and has been regarded as highly successful.

volatility in global markets contributed to a 10-20 percent decline in commercial real estate values in late 1998. John Hackett, ''CRE Seen Down 10% to 20%,'' *National Mortgage News,* (November 23, 1998), p. 1.

[131] The Congressional Budget Office, *The Economic and Budget Outlook: An Update,* (July 1999) predicts that GDP growth will slow from an annual rate exceeding 3.5 percent in recent years to 2.4 percent over 2000–2003 (p. 11). Standard & Poor's DRI, *The U.S. Economy,* (September 1999), estimates the probability of a recession in 2000, triggered by a collapse of the stock market, at 10 percent. Under this scenario, GDP growth would drop to 0.2 percent in 2000, but rebound to over 3 percent during the 2001–2003period.

[132] The World Bank Group, *Global Economic Prospects and the Developing Countries 1998/99: Beyond Financial Crisis,* 1998. Implications of the economic crisis in developing countries for lenders in developed countries is discussed in Martin Wolf, ''Borrowing: Let Lenders Beware,'' *Financial Times,* (December 9, 1998). DRI/McGraw Hill's *U.S. Financial Notes* says there is about a 30 percent chance of a ''hard landing'' in 1999 because of Brazil's decision to float the real and Japan's ongoing severe financial problems. Alternatively, if there is no recession in 1999, the result could be a later, but more severe, recession (February 18, 1999, p. 3).

[133] John Holusha, ''As Financing Pool Dries Up, Some See Opportunity,'' *New York Times,* November 1, 1998.

[134] See Fannie Mae's World Wide Web site at http://www.fanniemae.com.

[1] *Federal Reserve Bulletin,* (June 1998), A 35.

[136] 1997 Annual Housing Activity Reports, Table 1.

[137] William Segal and Edward J. Szymanoski. *The Multifamily Secondary Mortgage Market: The Role of Government-Sponsored Enterprises.* Housing Finance Working Paper No. HF–002, Office of Policy Development and Research, Department of Housing and Urban Development, (March 1997).

[138] HUD analysis of GSE loan-level data. Affordability data are missing on 11.1 percent of units backing Fannie Mae's 1997 multifamily acquisitions, which may contribute to the disparity between Fannie Mae and Freddie Mac regarding percentage of multifamily acquisitions contributing to the low-mod goal.

[139] *Fundingnotes,* Vol. 3, Issue 9; (September 1998), Eric Avidon, ''PaineWebber Lauds Fannie DUS Paper,'' *National Mortgage News,* (September 14, 1998), p. 21.

[140] There is evidence that the GSEs have benefited from recent widening in CMBS spreads because of their funding cost advantage. See ''No Credit Crunch for First Mortgages,'' *Commercial Mortgage Alert,* (October 12, 1998); and ''Turmoil a Bonanza for Freddie,'' *Commercial Mortgage Alert,* (November 2, 1998).

Freddie Mac's presence in the multifamily market is not as large as that of Fannie Mae, with year-end 1997 holdings of multifamily debt and guarantees representing 2.5 percent of the total. However, Freddie Mac is credited with rapidly rebuilding its multifamily operations since 1993. The GSEs' ability to lead the multifamily industry is discussed further below.

7. GSEs' Performance in the Multifamily Mortgage Market

GSE activity in the multifamily mortgage market has expanded rapidly since 1993, as noted previously. However, it is not clear that the potential of the GSEs to lead the multifamily mortgage industry has been fully exploited. In particular, the GSEs' multifamily purchases do not appear to be consistently contributing to mitigation of excessive cost of mortgage financing facing small properties with 5–50 units. GSE purchases of small loans with unpaid principal balance (UPB) less than or equal to $1 million have exhibited considerable volatility over 1993–1997, ranging from as little as 15 percent of the number of mortgage loans purchased (1996) to as high as 64 percent (1995).[141]

Based on data from the Survey of Residential Finance showing that 37 percent of units in mortgaged multifamily properties were in properties with 5–49 units, it appears reasonable to assume that loans backed by small properties account for 37 percent of multifamily units financed each year. Applying estimates of the dollar-size of the conventional multifamily market derived in Appendix D, and combining these with figures on loan amount per unit from GSE data in conjunction with data on loans securitized by private conduits to derive estimates of the annual volume of multifamily lending as measured in number of units financed, is appears that, during 1996–1998, the GSEs acquired loans representing only 5 percent of units in small multifamily properties with 5–50 units.

GSE multifamily acquisitions tend to involve larger properties than are typical for the market as a whole.[142] For example, the average number of units in Fannie Mae's 1997 multifamily transactions was 163, with a corresponding figure of 158 for Freddie Mac. Both of these averages are significantly higher than the overall market average of 33.4 units per property on 1995 originations estimated from the HUD Property Owners and Managers (POMS) survey.[143] A factor possibly contributing to the GSEs' emphasis on larger properties is the relatively high fixed multifamily origination costs, including appraisal, environmental review, and legal fees typically required under GSE underwriting guidelines.[144]

After evaluating the results of a $500 million Small Loan Experiment, Fannie Mae announced in October, 1998 that it had established a permanent Small Loan product through selected DUS lenders. Features include streamlined underwriting and due diligence procedures and documentation requirements. Unlike the standard DUS product, which has a $1 million minimum loan amount, there is no minimum loan amount for the Small Loan product.[145]

Another area affected by credit gaps, in which the GSEs have not demonstrated market leadership is rehabilitation loans. Fannie Mae applies more conservative underwriting standards to such properties, as discussed above. Both GSEs' relatively weak performance in the multifamily rehabilitation market segment is related to the fact that, since the inception of the interim housing goals in 1993, the great majority of units backing GSE multifamily mortgage purchases have been in properties securing refinance loans with an established payment history, in a proportion exceeding 80 percent in some years.[146]

In October, 1998 Fannie Mae announced a rehabilitation lending initiative providing up to $15,000 per unit on the condition that all units financed are affordable to low-and moderate income tenants. This product is intended to assist property owners in enhancing property quality and retaining tenants, strengthening competitiveness in relation to other similar properties.[147]

The GSEs have been conservative in their approach to multifamily credit risk.[148] HUD's analysis of prospectus data indicates that the average loan-to-value (LTV) ratio on pools of seasoned multifamily mortgages securitized by Freddie Mac during 1995 through 1996 was 55 percent. In comparison, the average LTV on private-label multifamily conduit transactions over 1995–1996 was 73 percent. Fannie Mae utilizes a variety of credit enhancements to further mitigate default risk on multifamily acquisitions, including loss sharing, recourse agreements, and the use of senior/subordinated debt structures.[149] Freddie Mac is less reliant on credit enhancements than is Fannie Mae, possibly because of a more conservative underwriting approach.[150]

GSE ambivalence regarding the perception of credit risk in lending on affordable multifamily properties is evident with regard to pilot programs established in 1991 between Freddie Mac and the Local Initiatives Managed Assets Corporation (LIMAC), a subsidiary of the Local Initiatives Support Corporation (LISC), and in 1994 between Fannie Mae and Enterprise Mortgage Investments (EMI), a subsidiary of the Enterprise Foundation. Cummings and DiPasquale (1998) conclude that both initiatives had mixed results, although the Fannie Mae/EMI pilot was more successful in a number of regards. The Freddie Mac/LIMAC initiative was suspended after two years with only one completed transaction, involving eight loans with an aggregate loan amount of $4.6 million. As of June, 1997, 15 transactions comprising $20.5 million had been completed under the Fannie Mae/EMI pilot, which is ongoing.

Both programs suffered initially from documentation requirements that borrowers perceived as burdensome. Cummings and DiPasquale observe that ''The smaller, nonprofit, and CDC developers that these programs intended to bring to the market were unprepared, and perhaps unwilling or unable, to meet the high costs of Freddie Mac's and Fannie Mae's due diligence requirements.''

E. Factor 3: Performance and Effort of the GSEs Toward Achieving the Low- and Moderate-Income Housing Goal in Previous Years

This section first discusses each GSE's performance under the Low- and Moderate-Income Housing Goal over the 1993–98 period. The data presented are ''official results''—i.e., they are based on HUD's in-depth analysis of the loan-level data submitted to the Department and the counting provisions contained in HUD's regulations in 24 CFR part 81, subpart B. As explained below, in some cases these ''official results'' differ from goal performance reported to the Department by the GSEs in their Annual Housing Activities Reports.

Following this analysis, the GSEs' past performance in funding low- and moderate-income borrowers in the single-family mortgage market is provided. Performance indicators for the Geographically-Targeted and Special Affordable Housing Goals are also included in order to present a complete picture in Appendix A of the GSEs' funding of single-family mortgages that qualify for the

[141] HUD analysis of GSE loan-level data.

[142] Larger properties may be perceived as less subject to income volatility caused by vacancy losses. Scale economies in securitization may also favor purchase of larger multifamily mortgages by the GSEs. Scale economies refer to the fixed costs in creating a mortgage backed security, and the smaller reduction in yield (higher security price) if these costs can be spread over larger unpaid principal balances.

[143] 1995 POMS data are used because 1995 represents the year with the most complete mortgage origination information in the Survey. 1996 GSE data are used because of number of units or property exhibited atypical behavior during 1995.

[144] These costs have been estimated at $30,000 for a typical transaction. Presentation by Jeff Stern, Vice President, Enterprise Mortgage Investments, HUD GSE Working Group, (July 23, 1998).

[145] ''Fannie Mae Offers Mortgage Financing for the Rehabilitation of Affordable Apartments; Also Expands Availability, Streamlines Procedures for Financing of Small Apartment Properties,'' Fannie Mae News Release, October 20, 1998. Freddie Mac's Conventional Cash Multifamily Mortgage Purchase Program includes a Small Loan Program for mortgages of $300,000—$1 million.

[146] Data from the HUD Property Owners and Managers Survey (POMS) suggests that, in and of itself, the GSEs' emphasis on refinance loans may roughly track that of the overall market.

[147] ''Fannie Mae Offers Mortgage Financing for the Rehabilitation of Affordable Apartments; Also Expands Availability, Streamlines Procedures for Financing of Small Apartment Properties,'' Fannie Mae News Release, October 20, 1998.

[148] Standard & Poor's described Fannie Mae's multifamily lending as ''extremely conservative'' in ''Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight (OFHEO),'' (February 3, 1997), p. 10.

[149] See William Segal and Edward J. Szymanoski. ''Fannie Mae, Freddie Mac, and the Multifamily Mortgage Market,'' *Cityscape: A Journal of Policy Development and Research,* vol. 4, no. 1 (1998), pp. 59–91.

[150] Freddie Mac's policy of re-underwriting each multifamily acquisition is a response to widespread defaults affecting its multifamily portfolio during the late 1980s according to Follain and Szymanoski (1995).

three housing goals. In addition, the findings from a wide range of studies—employing both quantitative and qualitative techniques to analyze several performance indicators and conducted by HUD, academics, and major research organizations—are summarized below.

Organization and Main Findings. Section E.1 reports the performance of Fannie Mae and Freddie Mac on the Low- and Moderate-Income Housing Goal. Section E.2 uses HMDA data and the loan-level data that the GSEs provide to HUD on their mortgage purchases to compare the characteristics of GSE purchases of single-family loans with the characteristics of all loans in the primary mortgage market and of newly-originated loans held in portfolio by depositories. Section E.3 summarizes the findings from several studies that have examined the role of the GSEs in supporting affordable lending. Section E.4 discusses the findings from a recent HUD-sponsored study of the GSEs' underwriting guidelines.[151] Finally, Section E.5 reviews the GSEs' support of the single-family rental market.

The Section's main findings with respect to the GSEs' single-family mortgage purchases are as follows:

(i) Both Fannie Mae and Freddie Mac surpassed the Low- and Moderate-Income Housing Goals of 40 percent in 1996 and 42 percent in 1997 and 1998.

(ii) Both Fannie Mae and Freddie Mac have improved their affordable lending[152] performance over the past six years but, on average, they have lagged the primary market in providing mortgage funds for lower-income borrowers and underserved neighborhoods. This finding is based both on HUD's analysis of GSE and HMDA data as well as on numerous studies by academics and research organizations.

(iii) The GSEs show very different patterns of home loan lending.[153] Through 1998, Freddie Mac has been less likely than Fannie Mae to fund single-family home mortgages for low-income families and their communities. The percentages of Freddie Mac's purchases benefiting historically underserved families and their neighborhoods have also been substantially less than the corresponding shares of total market originations. Freddie Mac has not made much progress closing the gap between its performance and that of the overall home loan market.

(iv) Fannie Mae's purchases more nearly match the patterns of originations in the primary market than do Freddie Mac's. However, during the 1993–98 period as a whole and the 1996–98 period during which the new goals were in effect, Fannie Mae has lagged depositories and others in the conforming market in providing funding for the lower-income borrowers and neighborhoods covered by the three housing goals.

(v) A large percentage of the lower-income loans purchased by the GSEs have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of lower-income families who have little cash for making large down payments.

(vi) A study by The Urban Institute of lender experience with the GSEs' underwriting standards finds that the enterprises have stepped up their outreach efforts and have increased the flexibility in their underwriting standards, to better accommodate the special circumstances of lower-income borrowers. However, this study concludes that the GSEs' guidelines remain somewhat inflexible and that they are often hesitant to purchase affordable loans. Lenders also tell the Urban Institute that Fannie Mae has been more aggressive than Freddie Mac in market outreach to underserved groups, in offering new affordable products, and in adjusting their underwriting standards.

(vii) While single-family rental properties are an important source of low-income rental housing, they represent only a small portion of the GSEs' business. In addition, many of the single-family rental properties funded by the GSEs are one-unit detached units in suburban areas rather than the older, 2–4 units commonly located in urban areas.

1. Past Performance on the Low- and Moderate-Income Housing Goal

HUD's goals specified that in 1996 at least 40 percent of the number of units eligible to count toward the Low- and Moderate-Income Goal should qualify as low-or moderate-income, and at least 42 percent should qualify in 1997 and 1998. Actual performance, based on HUD's analysis, was as follows:

	1996	1997	1998
Fannie Mae:			
Units Eligible to Count Toward Goal	1,831,690	1,710,530	3,468,428
Low- and Moderate-Income Units	834,393	782,265	1,530,308
Percent Low- and Moderate-Income	45.6	45.7	44.1
Freddie Mac:			
Units Eligible to Count Toward Goal	1,293,424	1,173,915	2,654,850
Low- and Moderate-Income Units	532,219	499,590	1,137,660
Percent Low- and Moderate-Income	41.1	42.6	42.9

Thus, Fannie Mae surpassed the goals by 5.6 percentage points and 3.7 percentage points in 1996 in 1997, respectively, while Freddie Mac surpassed the goals by 1.1 and 0.6 percentage points. In 1998 Fannie Mae's performance fell by 1.6 percentage points, while Freddie Mac's reported performance continued to rise, by 0.3 percentage point.

The figures for goal performance presented above for 1993–97 differ from the corresponding figures presented by Fannie Mae and Freddie Mac in their Annual Housing Activity Reports to HUD by 0.2–0.3 percentage points in both 1996 and 1997, reflecting minor differences in application of counting rules.

Fannie Mae's performance on the Low- and Moderate-Income Goal jumped sharply in just one year, from 34.1 percent in 1993 to 45.1 percent in 1994, before tailing off to 42.8 percent in 1995. As indicated, it then stabilized at the 1994 level, just over 45 percent, in 1996 and 1997, before tailing off to 44.1 percent last year. Freddie Mac has shown more steady gains in performance on the Low- and Moderate-Income Goal, from 30.0 percent in 1993 to 38.0 percent in 1994 and 39.6 percent in 1995, before surpassing 41 percent in 1996 and 42 percent 1997, and rising to nearly 43 percent last year.

Fannie Mae's performance on the Low-and Moderate-Income Goal has surpassed Freddie Mac's in every year. However, Freddie Mac's 1998 performance represented a 44 percent increase over the 1993 level, exceeding the 29 percent increase for Fannie Mae. And Freddie Mac's performance was 97 percent of Fannie Mae's low- and moderate-income share in 1998, the highest ratio since the goals took effect in 1993. This improved performance of Freddie Mac is due mainly to its increased purchases of multifamily loans as it re-entered that market.

2. Comparisons With the Primary Mortgage Market

This section summarizes several analyses conducted by HUD on the extent to which the GSEs' loan purchases through 1998 mirror or depart from the patterns found in the primary mortgage market. The GSEs' affordable lending performance is also compared with the performance of major portfolio lenders such as commercial banks and thrift institutions. Dimensions of lending considered include the borrower income and underserved area dimensions covered by the three housing goals. Subsection *a* defines the primary mortgage market, subsection b addresses some questions that have recently

[151] A more detailed discussion of underwriting guidelines is contained in the analysis below regarding Factor 5, ''The GSEs' Ability to Lead the Industry.''

[152] The term ''affordable lending'' is used generically here to refer to lending for lower-income families and neighborhoods that have historically been underserved by the mortgage market.

[153] Throughout these appendices, the terms ''home loan'' or ''home mortgage'' will refer to a ''home purchase loan,'' as opposed to a ''refinance loan.''

arisen about HMDA's measurement of GSE activity, and subsections c–e present the findings.[154]

The market analysis in this section is based mainly on HMDA data for home purchase loans originated in metropolitan areas during the years 1992 to 1998. The HMDA data for 1998 was not released until August 1999 which gave HUD little time to incorporate that data fully into the analyses reported in these appendices; thus, the discussion below will often focus on the year 1997, with any differences from 1998 briefly noted. However, it should be emphasized that 1997 represents more typical mortgage market activity than the heavy refinancing year of 1998. Still, important shifts in mortgage funding that occurred during 1998 will be highlighted in order to offer as complete and updated analysis as possible.

a. Definition of Primary Market

First it is necessary to define what is meant by ''primary market'' in making these comparisons. In this section this term includes all mortgages on single-family owner-occupied properties that are originated in the conventional conforming market.[155] The source of this market information is the data provided by loan originators to the Federal Financial Institutions Examination Council (FFIEC) in accordance with the Home Mortgage Disclosure Act (HMDA).

There is a consensus that the following loans should be excluded from the HMDA data in defining the ''primary market'' for the sake of comparison with the GSEs'' purchases of goal-qualifying mortgages:

(i) Loans with a principal balance in excess of the loan limit for purchases by the GSEs—$240,000 for a 1-unit property in most parts of the United States in 1999.[156] Loans not in excess of this limit are referred to as ''conforming mortgages'' and larger loans are referred to as ''jumbo mortgages.''[157]

(ii) Loans which are backed by the Federal government, including those insured by the Federal Housing Administration and those guaranteed by the Department of Veterans Affairs, which are generally securitized by the Government National Mortgage Association (''Ginnie Mae''), as well as Rural Housing Loans, guaranteed by the Farmers Home Administration.[158] Generally, the GSEs do not receive credit on the housing goals for purchasing loans with Federal government backing. Loans without Federal government backing are referred to as ''conventional mortgages.''

Questions have arisen about whether loans on manufactured housing should be excluded when comparing the primary market with the GSEs. As discussed elsewhere in this Appendix, the GSEs have not played a significant role in the manufactured housing mortgage market in the past. However, the manufactured home mortgage market is changing in ways that make a higher percentage of such loans eligible for purchase by the GSEs, and the GSEs are looking for ways to increase their purchases of these loans. But more importantly, the manufactured housing sector is one of the most important providers of affordable housing, which makes it appropriate to include this sector in the market definition. For comparison purposes, data are presented for the primary market defined both to include and exclude mortgages originated by manufactured housing lenders. This issue is discussed further in Appendix D, which calculates the market shares for each housing goal.

Questions have also arisen about whether subprime loans should be excluded when comparing the primary market with the GSEs. Appendix D, which examines this issue in some detail, reports the effects of excluding the B&C portion of the subprime market from HUD's estimates of the goal-qualifying shares of the overall (combined owner and rental) mortgage market. As explained Section C.3.e of this appendix, the low-income and minority borrowers in the A-minus portion of the subprime market could benefit from the standardization and lower interest rates that typically accompany an active secondary market effort by the GSEs. A-minus loans are not nearly as risky as B&C loans and Freddie Mac has already starting purchasing A-minus loans, both on a flow basis and through negotiated transactions. Fannie Mae recently introduced a new program targeted at A-minus borrowers. Thus, HUD does not believe that A-minus loans should be excluded from the market definition.

Unfortunately, HMDA does not identify subprime loans, much less separating them into their A-minus and B&C components. There is evidence that many subprime loans are not reported to HMDA but there is no conclusive evidence on this issue.[159] Thus, it is not possible to exclude B&C loans from the comparisons reported below. However, HUD staff has identified HMDA reporters that primarily originate subprime loans.[160] The text below will report the effects of excluding data for these lenders from the primary market. The effects are minor mostly because the analysis below focuses on home purchase loans, which accounted for only twenty percent of the mortgages originated by the subprime lenders. During 1997 and 1998, the subprime market was primarily a refinance market.

b. Methods and Data for Measuring GSE Performance

Several issues have arisen about the methods and the data used to measure the GSEs' performance relative to the characteristics of the mortgages being originated in the primary market. While most of these issues will be discussed throughout the appendices, one issue, the reliability of HMDA data in measuring GSE performance, needs to addressed before presenting the market comparisons, which utilize the HMDA data. Fannie Mae has raised questions about HUD's reliance on HMDA data for measuring its performance.

There are two sources of loan-level information on the characteristics of mortgages purchased by the GSEs—the GSEs themselves and HMDA data. The GSEs provide detailed data on their mortgage purchases to HUD on an annual basis. As part of their annual HMDA reporting responsibilities, lenders are required to indicate whether their new mortgage originations or purchased loans are sold to Fannie Mae, Freddie Mac or some other entity. As discussed later, there have been numerous studies by HUD staff and other researchers that use the HMDA data to compare the borrower and neighborhood characteristics of loans sold to the GSEs with the characteristics of all loans originated in the market. The question is whether the HMDA data, which is widely available to the public, provides an accurate measure of GSE performance, as compared with the GSEs' own data.[161] Fannie Mae has argued that HMDA data have understated its past performance, where performance is defined as the percentage of Fannie Mae's mortgage purchases accounted for by one of the goal-qualifying categories such as underserved areas. As explained below, HMDA provided reliable national-level information through 1997 on the GSEs' purchases of newly-originated loans but not on their purchases of prior-year loans. In 1998, HMDA data differed from data that the GSEs reported to HUD on their purchases of newly-originated loans.

In any given calendar year, the GSEs can purchase mortgages originated in that calendar year or mortgages originated in a

---

[154] Subsections *b–d* of this section focus on the single-family mortgage market for home purchase loans, which is the relevant market for analysis of homeownership opportunities. Subsection e extends the analysis to include single-family refinance loans. For a discussion of past performance in the multifamily mortgage market, see Section D of this Appendix.

[155] Thus, the market definition in this section is narrower than the data presented earlier in Section C and Tables A.1a and A.1b, which covered all loans (both government and conventional) less than or equal to the conforming loan limit. In this section, only the GSEs' purchases of conventional conforming loans are considered.

[156] Higher limits apply for loans on 2-, 3-, and 4-unit properties and for properties in Alaska, Hawaii, Guam, and the Virgin Islands.

[157] ''Jumbo mortgages'' in any given year might become eligible for purchase by the GSEs in later years as the loan limits rise and the outstanding principal balance is reduced.

[158] However, in analyzing the provision of mortgage finance more generally, it is often appropriate to include government loans; see Tables A.1a, A.1b and A.2 in Section C.3.b.

[159] *Fair Lending/CRA Compass,* (June 1999), p. 3.

[160] Randall M. Scheessele developed a list of 42 subprime lenders that was used by HUD and others in analyzing HMDA data through 1997. In 1998, Scheessele updated the list to 200 subprime lenders. For analysis comparing various lists of subprime lenders, see Appendix D of Scheessele (1999), op. cit. That paper also discusses Scheessele's lists of manufactured housing lenders.

[161] See Randall M. Scheessele, *HMDA Coverage of the Mortgage Market*, Housing Finance Working Paper HF–007, Office of Policy Development and Research, Department of Housing and Urban Development, July 1998. Scheessele reports that HMDA data covered 81.6 percent of the loans acquired by Fannie Mae and Freddie Mac in 1996. The main reason for the under-reporting of GSE acquisitions is a few large lenders failed to report the sale of a significant portion of their loan originations to the GSEs. Also see Jim Berkovec and Peter Zorn. ''Measuring the Market: Easier Said than Done,'' *Secondary Mortgage Markets.* McLean VA: Freddie Mac (Winter 1996), pp. 18–21.

prior calendar year. In 1997, purchases of prior-year mortgages accounted for 30 percent of the single-family units financed by Fannie Mae's mortgage purchases and 20 percent of the single-family units financed by Freddie Mac's mortgage purchases.[162] HMDA data provides information mainly on newly-originated mortgages that are sold to the GSEs—that is, HMDA data on loans sold to the GSEs will not include many of their purchases of prior-year loans.[163] The implications of this for measuring GSE performance can be seen in Tables A.3 and A.4a.[164]

Table A.3 summarizes affordable lending by the GSEs, depositories and the conforming market for the six-year period between 1993 and 1998 and for the borrower and census tract characteristics covered by the housing goals. The GSE percentages presented in Table A.3 are derived from the GSEs' own data that they provide to HUD, while the depository and market percentages are taken from HMDA data. Annual data on the borrower and census tract characteristics of GSE purchases are provided in Table A.4a. According to Fannie Mae's own data, 9.9 percent of its purchases during 1997 were loans for very low-income borrowers (see Table A.4a). According to HMDA data (also reported in Table A.4a), only 8.8 percent of Fannie Mae's purchases were loans for very low-income borrowers.[165] Thus, in this case the HMDA data underestimate the share of Fannie Mae's mortgage purchases for very low-income borrowers.

BILLING CODE 4210–27–P

[162] Since 1993, the GSEs have increased their purchases of seasoned loans. See Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996–1997 Update,* Housing Finance Working Paper HF–006, Office of Policy Development and Research, Department of Housing and Urban Development, (August 1998), p.17.

[163] For a discussion of the impact of the GSEs' seasoned mortgage purchases on HMDA data coverage, see Scheessele (1998), op. cit.

[164] Table A.4b, which reports similar GSE information as Table A.4a, provides several alternative estimates of the conventional conforming market depending on the treatment of small loans, manufactured housing loans, and subprime loans. The data in Table A.4b will be referenced throughout the discussion.

[165] Any HMDA data reported in the appendices on borrower incomes excludes loans where the loan-to-borrower-income ratio is greater than six.

Table A.3

GSE Purchases and Single-Family Lending in Metropolitan Areas Goal-Qualifying Home Purchase Mortgages, 1993-1998

Borrower and Tract Characteristics	Fannie Mae	Freddie Mac	Depository Portfolio	Conforming Market Total	Conforming Market W/O Mfg Homes
Very Low-Income					
1993-1998	9.2 %	7.6 %	14.5 %	12.4 %	10.7 %
1993-1995	8.1	6.6	14.5	11.6	10.3
1996-1998	10.1	8.4	14.5	13.0	11.1
Special Affordable					
1993-1998	11.0	9.0	17.0	14.6	12.7
1993-1995	9.9	7.9	17.1	13.8	12.3
1996-1998	11.9	9.8	16.7	15.3	13.1
Less than Area Median Income					
1993-1998	37.4	33.8	43.6	41.8	39.4
1993-1995	36.3	32.4	44.1	40.8	39.0
1996-1998	38.4	34.9	43.1	42.6	39.6
Underserved Area					
1993-1998	22.9	19.7	26.3	24.5	23.4
1993-1995	22.9	19.4	26.8	24.0	23.2
1996-1998	22.9	19.9	25.8	24.9	23.5

Source: The Fannie Mae and Freddie Mac data include information on all their purchases of home loans and are from the loan-level data that they provide to HUD. All mortgages are conventional conforming mortgages. The Depository Portfolio and Conforming Market data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations. The "Conforming Market W/O Mfg Homes" data for borrower income exclude loans less than $15,000 and loans from lenders that primarily originate manufactured housing loans. Special affordable includes very low-income borrowers and low-income borrowers in low-income census tracts. Data with missing values are excluded.

Table A.4a

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas Goal-Qualifying Home Purchase Mortgages, 1992-1998

	Fannie Mae Data			HMDA Data	Freddie Mac Data			HMDA Data	Conforming Market	
	Prior Yr	Current Yr	All	for Fannie Mae	Prior Yr	Current Yr	All	for Freddie Mac	All	W/O Mfg Homes
Very Low-Income										
1992				5.2 %				5.3 %	8.7 %	7.6 %
1993	6.5 %	6.7 %	6.7 %	7.4	4.2 %	6.2 %	6.0 %	6.6	10.8	9.6
1994	7.9	8.9	8.7	9.4	6.4	6.8	6.7	7.8	11.9	10.7
1995	11.2	8.9	9.3	8.5	7.7	6.8	7.0	7.5	12.0	10.5
1996	8.8	8.4	8.5	8.7	7.2	7.4	7.4	8.0	12.7	10.8
1997	13.4	8.7	9.9	8.8	7.5	7.6	7.6	8.0	13.0	11.0
1998	15.1	10.5	11.4	9.2	10.1	9.8	9.9	8.4	13.3	11.4
Special Affordable										
1992				6.3				6.5	10.4	9.3
1993	8.2	8.1	8.1	8.8	5.1	7.4	7.2	7.8	12.6	11.3
1994	9.5	10.8	10.6	11.4	7.6	8.1	8.0	9.2	14.1	12.8
1995	13.2	10.8	11.2	10.5	9.1	8.2	8.3	8.9	14.4	12.7
1996	10.6	10.2	10.3	10.5	8.4	8.7	8.7	9.4	15.0	12.8
1997	16.0	10.2	11.7	10.5	9.2	9.0	9.0	9.4	15.3	13.0
1998	17.9	12.1	13.2	10.7	11.8	11.2	11.3	9.7	15.5	13.4
Less Than Area Median Income										
1992				29.2				28.7	34.4	33.0
1993	30.4	33.5	33.2	35.0	24.9	32.1	31.6	32.3	38.9	37.4
1994	35.6	38.9	38.3	40.1	31.5	33.6	33.2	35.6	41.8	40.3
1995	38.6	37.7	37.8	37.1	33.6	32.1	32.4	33.9	41.4	39.2
1996	35.5	36.8	36.5	37.7	31.8	33.5	33.2	35.3	42.2	39.4
1997	41.1	36.4	37.6	37.5	33.7	34.2	34.1	35.4	42.5	39.6
1998	45.3	39.2	40.4	38.1	36.1	37.0	36.9	36.2	43.0	40.4
Underserved Areas										
1992				18.3				18.6	22.2	21.5
1993	23.8	19.4	20.3	18.2	19.5	18.2	18.4	17.6	21.9	21.1
1994	26.6	23.6	24.3	22.5	21.0	19.4	19.7	19.2	24.4	23.5
1995	27.4	23.9	24.7	22.8	22.6	19.4	20.1	19.1	25.5	24.2
1996	23.4	21.9	22.3	21.6	22.3	19.1	19.7	19.0	25.0	23.1
1997	30.1	20.8	23.5	21.0	22.2	19.3	19.9	18.6	25.2	23.3
1998	28.4	21.0	22.9	19.6	22.0	19.5	20.0	17.4	24.6	22.8

Source: The Fannie Mae and Freddie Mac data for their purchases of "Prior Year" mortgages, "Current Year" mortgages, and "All" mortgages are from the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The "HMDA Data" are those mortgages that HMDA identifies as being sold to the GSEs.The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from the borrower income calculations. The "Conforming Market W/O Mfg Homes" data exclude loans less than $15,000 and loans from lenders that primarily originate manufactured housing loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

Table A.4b

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-1998
Various Market Definitions

			Conventional Conforming Market Originations					
	Fannie Mae Purchases	Freddie Mac Purchases	Total Market	W/O Mfg Loans Only	W/O Loans Less Than $15K	W/O Mfg and Less Than $15K Loans	W/O Subprime Loans	W/O Subprime and Less Than $15K Loans
Very Low-Income								
1992	5.2 %	5.3 %	8.7 %	8.3 %	7.9 %	7.6 %	8.7% %	7.9 %
1993	6.7	6.0	10.8	10.2	10.0	9.6	10.8%	10.0
1994	8.7	6.7	11.9	11.2	11.2	10.7	11.9%	11.2
1995	9.3	7.0	12.0	11.0	11.3	10.5	12.0%	11.2
1996	8.5	7.4	12.7	11.2	12.0	10.8	12.7%	12.0
1997	9.9	7.6	13.0	11.4	12.4	11.0	13.0%	12.3
1998	11.4	9.9	13.3	11.7	12.8	11.4	13.1%	12.6
Special Affordable								
1992	6.3	6.5	10.4	10.0	9.5	9.3	10.4	9.5
1993	8.1	7.2	12.6	12.0	11.8	11.3	12.6	11.8
1994	10.6	8.0	14.1	13.4	13.4	12.8	14.1	13.3
1995	11.2	8.3	14.4	13.3	13.6	12.7	14.4	13.6
1996	10.3	8.7	15.0	13.3	14.2	12.8	15.0	14.2
1997	11.7	9.0	15.3	13.5	14.6	13.0	15.2	14.5
1998	13.2	11.3	15.5	13.7	15.0	13.4	15.2	14.7
Less Than Area Median Income								
1992	29.2	28.7	34.4	33.8	33.4	33.0	34.4	33.4
1993	33.2	31.6	38.9	38.0	38.1	37.4	38.9	38.0
1994	38.3	33.2	41.8	40.8	41.1	40.3	41.8	41.1
1995	37.8	32.4	41.4	39.8	40.5	39.2	41.3	40.3
1996	36.5	33.2	42.2	39.9	41.1	39.4	42.2	41.4
1997	37.6	34.1	42.5	40.1	41.8	39.6	42.4	41.6
1998	40.4	36.9	43.0	40.7	42.5	40.4	42.6	42.1
Underserved Areas								
1992	18.3	18.6	22.2	21.9	21.7	21.5	22.1	21.6
1993	20.3	18.4	21.9	21.5	21.5	21.1	21.8	21.3
1994	24.3	19.7	24.4	23.9	24.0	23.5	24.3	23.8
1995	24.7	20.1	25.5	24.6	25.0	24.2	25.3	24.9
1996	22.3	19.7	25.0	23.5	24.5	23.1	24.8	24.4
1997	23.5	19.9	25.2	23.7	24.8	23.3	24.7	24.3
1998	22.9	20.0	24.6	23.1	24.3	22.8	23.7	23.4

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from all borrower income calculations. See the text for an explanation of the adjustments for manufactured housing (mfg) and subprime loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

BILLING CODE 4210–27–C

The reason that HMDA data underestimate those purchases can be seen by disaggregating Fannie Mae's purchases during 1997 into their ''Prior Year'' and ''Current Year'' components. Table A.4a shows that the overall figure of 9.9 percent for very low-income borrowers is a weighted average of 13.4 percent for Fannie Mae's purchases during 1997 of ''Prior Year'' mortgages and 8.7 percent for its purchases of ''Current Year'' purchases. HMDA data report that 8.8 percent of Fannie Mae's 1997 purchases consisted of loans to very low-income borrowers is based mainly on newly-mortgaged (current-year originations) loans that lenders report they sold to Fannie Mae. Therefore, the HMDA data figure is similar in concept to the ''Current Year'' percentage from the GSEs' own data. As Table A.4a shows, HMDA data and ''Current Year'' figures are practically the same in this case (about nine percent). Thus, the relatively large share of very low-income mortgages in Fannie Mae's 1997 purchases of ''Prior Year'' mortgages is the primary reason why Fannie Mae's own data show an overall (both prior-year and current-year) percentage of very low-income loans that is higher than that reported in HMDA data.

A review of the data in Table A.4a yields the following insights about the reliability of HMDA data at the national level for metropolitan areas. First, comparing the HMDA data on GSE purchases with the GSE ''Current Year'' data suggests that HMDA data provided reasonable estimates of the GSEs' current year purchases through 1997.[166] Second, the HMDA data percentages through 1997 are actually rather close to Freddie Mac's *overall* percentages because Freddie Mac's prior-year purchases often resembled their current-year originations. Fannie Mae, on the other hand, was more apt to purchase seasoned loans with a relatively high percentage of low-income loans, which means that HMDA data was more likely to underestimate its overall performance. However, this underestimation of the share of Fannie Mae's goal-qualifying loans in the HMDA data first arose in 1997, when Fannie Mae's purchases of prior-year loans were particularly targeted to affordable lending groups. For the years 1993 to 1996, Fannie Mae's prior-year loan purchases more closely resembled their current-year originations.

Third, the 1998 data show that even the GSEs' ''Current Year'' data differ from the HMDA-reported data on GSE purchases. For example, special affordable loans accounted for 12.1 percent of Fannie Mae's current-year purchases in 1998 compared with only 10.7 percent of Fannie Mae's special affordable purchases as reported by HMDA. Similarly, underserved areas accounted for 21.0 percent of Fannie Mae's current-year purchases compared with only 19.6 percent of Fannie Mae's underserved area purchases as reported by HMDA. The same patterns exist for Freddie Mac's 1998 data for the special affordable and underserved area categories. Thus, 1998 HMDA data do not provide a reliable estimate at the national level of the GSEs' purchases of current-year (newly-mortgaged) loans. More research on this issue is needed.

The next section compares the GSE performance with that of the overall market. The fact that the GSE data includes prior-year as well as current-year loans, while the market data includes only current-year originations, means that the GSE-versus-market comparisons are defined somewhat inconsistently for any particular calendar year. Each year, the GSEs have newly-originated affordable loans available for purchase, but they can also purchase loans from a large stock of seasoned loans currently being held in the portfolios of depository lenders. Depository lenders have originated a large number of CRA-type loans over the past six years and many of them remain on their books. In fact, HUD has encouraged the GSEs to purchase seasoned, CRA-type loans that have demonstrated their creditworthiness. One method for making the data more consistent is to aggregate the data over several years, instead of focusing on annual data. This provides a clearer picture of the types of loans that have been originated and are available for purchase by the GSEs. This approach is taken in Table A.3.

c. Affordable Lending by the GSEs and the Primary Market

Table A.3 summarizes goal-qualifying lending by the GSEs, depositories and the conforming market for the six-year period between 1993 and 1998 and for the more recent 1996–98 period, which covers the period since the most recent housing goals have been in effect. As noted above, the data are aggregated over time to provide a clearer picture of how the GSEs' purchases of both current-year and prior-year loans compare with the types of mortgages that have been originated during the past few years. All of the data are for home purchase mortgages in metropolitan areas. Several points stand out concerning the affordable lending performance of Freddie Mac and Fannie Mae.

Freddie Mac. The data in Table A.3 show that Freddie Mac has substantially lagged both Fannie Mae and the primary market in funding affordable home loans. Between 1993 and 1998, 7.6 percent of Freddie Mac's mortgage purchases were for very low-income borrowers, compared with 9.2 percent of Fannie Mae's purchases, 14.5 percent of loans originated and retained by depositories, and 12.4 percent of loans originated in the conforming market (or 10.7 percent if manufactured home loans are excluded from the conforming market definition).[167] As shown by the annual data reported in Table A.4a, Freddie Mac did improve its funding of very low-income borrowers during this period, from 6.0 percent in 1993 to 7.6 percent in 1997, and then to 9.9 percent in 1998. However, Freddie Mac has not made as much progress as Fannie Mae (discussed below) in closing the gap between its performance and that of the overall market. During the 1996–98 period in which the new goals have been in effect, the ratio of Freddie Mac's average performance (8.4 percent) to that of the overall market (13.0 percent) was only 0.65; this ''Freddie-Mac-to-market'' ratio remains at only 0.76 even when manufactured homes are excluded from the market definition.

A similar conclusion about Freddie Mac's performance can be drawn for the other goal-qualifying categories presented in Tables A.3 and A.4a: Freddie Mac's performance has remained well below the market since 1993. For example, during the 1996–98 period when the new housing goals have been in effect, mortgages financing properties in underserved areas accounted for only 19.9 percent of Freddie Mac's purchases, compared with 22.9 percent of the loans purchased by Fannie Mae and 24.9 percent of the mortgages originated in the conforming market. Similarly, mortgages originated for low- and moderate-income borrowers represented 34.9 percent of Freddie Mac's purchases during this period, compared with 42.6 percent of all mortgages originated in the conforming market.

One encouraging sign for Freddie Mac is that the borrower-income categories showed a rather large increase between 1997 and 1998. Special affordable (low-mod) loans increased from 9.0 (34.1) percent in 1997 to 11.3 (36.9) percent in 1998. The reasons for this increase require further study, but certainly, an interesting question going forward is whether Freddie Mac can continue this 1997–98 pattern and thus further close its performance gap relative to the overall market. It is somewhat surprising that Freddie Mac's purchases of home loans in underserved areas did not increase (in percentage terms) between 1997 and 1998; as shown in Table A.4a, the underserved areas share of Freddie Mac's home loan purchases has remained constant at approximately 20 percent since 1994.

Fannie Mae. The data in Table A.3 show that Fannie Mae has also lagged depositories and the primary market in the funding of homes for lower-income borrowers and underserved neighborhoods. Between 1993 and 1998, 37.4 percent of Fannie Mae's purchases were for low- and moderate-income borrowers, compared with 43.6 percent of loans originated and retained by depositories and with 41.8 percent of loans originated in the primary market. Over the more recent 1996–98 period, 22.9 percent of Fannie Mae's purchases financed properties in underserved neighborhoods, compared with 25.8 percent of loans originated by depositories and 24.9 percent of loans

[166] For example, in 1997 Fannie Mae reported that 20.8 percent of the loans they purchased, that were originated during 1997, were for properties in underserved area. HMDA reports that 21.0 percent of the loans sold to Fannie Mae during 1997 were for properties in underserved areas. The corresponding numbers for Freddie Mac, in 1997, are 19.3 percent reported by them and 18.6 percent reported by HMDA. During 1997, both Fannie Mae and HMDA reported that approximately 37 percent of the ''current year'' loans purchased by Fannie Mae were for low- and moderate-income borrowers. Freddie Mac reported that 34.2 percent of the current year loans they purchased were for low- and moderate-income borrowers, compared to the 35.4 low-mod percent that HMDA reported as sold to Freddie Mac.

[167] The borrower income distributions in Tables A.3 and A.4a for the ''market without manufactured housing'' exclude loans less than $15,000 as well as all loans originated by lenders that primarily originate manufactured housing loans. See Table A.4b for market definitions that show the separate effects of excluding small loans and manufactured housing loans.

originated in the conventional conforming market.

However, Fannie Mae's affordable lending performance can be distinguished from Freddie Mac's. First, Fannie Mae has performed much better than Freddie Mac on every goal-category examined here. For example, home loans for special affordable loans accounted for 13.2 percent of Fannie Mae's purchases in 1998, compared with only 11.3 percent of Freddie Mac's purchases (see Table A.4a). In that same year, 22.9 percent of Fannie Mae's purchases were in underserved census tracts, compared with only 20.0 percent of Freddie Mac's purchases.

Second, Fannie Mae has improved its performance over the past six years and has made more progress than Freddie Mac in closing the gap between its performance and the market's performance on the goal-qualifying categories examined here. In fact, Fannie Mae's performance is now close to that of the primary market for some important components of affordable lending. For example, in 1992, very low-income loans accounted for 5.2 percent of Fannie Mae's purchases and 8.7 percent of all loans originated in the conforming market, giving a ''Fannie Mae-to-market'' ratio of 0.60. By 1998, this ratio had risen to 0.86, as very low-income loans had increased to 11.4 percent of Fannie Mae's purchases and to 13.3 percent of market originations.

A similar trend in market ratios can be observed for Fannie Mae on the underserved areas category. Fannie Mae has been improving its performance relative to the market; for example, the ''Fannie-Mae-to-market'' ratio for underserved areas increased from 0.82 in 1992 to 0.93 in 1998. This improved performance relative to the overall market by Fannie Mae is in sharp contrast to Freddie Mac's record—the ''Freddie-Mac-to-market'' ratio for underserved areas actually declined, from 0.84 in 1992 to 0.81 in 1998. As a result, Fannie Mae has been approaching the home loan market in underserved areas while Freddie Mac has been losing ground relative to overall primary market.

B&C Home Purchase Loans. As explained earlier, HMDA does not identify subprime loans, much less separate them into their A-minus and B&C components. Randall Scheessele at HUD has identified 200 HMDA reporters that primarily originate subprime loans and probably accounted for at least half of the subprime market during 1998.[168] As shown in Table A.4b, excluding the home purchase loans originated by these lenders from the primary market data has only minor effects on the goal-qualifying shares of the market. The average market percentages for 1998 are reduced as follows: low- and moderate-income (43.0 to 42.6 percent); special affordable (15.5 to 15.2 percent); and underserved areas (24.6 to 23.7 percent). As explained earlier, the effects are minor mostly because this analysis focuses on home purchase loans, which accounted for only 20 percent of the mortgages originated by these 200 subprime lenders— the subprime market has been mainly a refinance market.

d. Prior-Year Loans

An important source of the differential in affordable lending between Fannie Mae and Freddie Mac concerns the purchase of prior-year loans. As shown in Table A.4a, the prior-year mortgages that Fannie Mae has been recently purchasing are much more likely to be loans for lower-income families and underserved areas than the newly-originated mortgages that they have been purchasing. For example, 30.1 percent of Fannie Mae's 1997 purchases of prior-year mortgages were loans financing properties in underserved areas, compared with 20.8 percent of its purchases of newly-originated mortgages. These purchases of prior-year mortgages are one reason that Fannie Mae improved its performance relative to the primary market, which includes only newly-originated mortgages, in 1997. Sixteen percent of its prior-year mortgages qualified for the Special Affordable Goal, compared with only 10.2 percent of its purchases of newly-originated loans. The same patterns are exhibited by the 1998 data. For example, 17.9 percent of Fannie Mae's prior-year purchases during 1998 qualified for the Special Affordable Goal, compared with only 12.1 percent of its 1998 purchases of newly-originated loans. Fannie Mae seems to be purchasing affordable loans that were originated by portfolio lenders in previous years.

Freddie Mac, on the other hand, does not seem to be pursuing such a strategy, or at least not to the same degree as Fannie Mae. In 1997 and 1998, Freddie Mac's purchases of prior-year mortgages and its purchases of newly-originated mortgages had similar percentages of special affordable and low- and moderate-income borrowers. As Table A.4a shows, there is a small differential between Freddie Mac's prior-year and newly-originated mortgages for the underserved areas category but it is much smaller than the differential for Fannie Mae. Thus, Freddie Mac's purchases of prior-year mortgages are less likely to qualify for the housing goals, and this is one reason Freddie Mac's overall affordable lending performance is below Fannie Mae's.

e. GSE Purchases of Total (Home Purchase and Refinance) Loans

The above sections have examined the GSEs' acquisitions of home purchase loans, which is appropriate given the importance of the GSEs for expanding homeownership opportunities. To provide a complete picture of the GSEs' mortgage purchases in metropolitan areas, this section briefly considers the GSEs' purchases of all single-family-owner mortgages, including both home purchase loans and refinance loans.[169] Shifting the analysis to consider all (home purchase and refinance) mortgages does not change the basic finding that both GSEs lag the primary market in serving low-income borrowers and underserved neighborhoods. For example, in 1998 underserved areas accounted for 21.2 (20.9) percent of Fannie Mae's (Freddie Mac's) purchases, compared to approximately 25.0 percent for both depository institutions and the overall primary market. Similarly, special affordable loans accounted for 11.1 (10.9) percent of Fannie Mae's (Freddie Mac's) purchases of single-family-owner loans, compared to 14.9 percent for depository institutions and 14.3 percent for the overall primary market.

There are two changes when one shifts the analysis from only home purchase loans to include all mortgages—one concerning the relative performance of Fannie Mae and Freddie Mac and one concerning the impact of subprime mortgages on the goals-qualifying percentages. These are discussed next.

Fannie Mae versus Freddie Mac Performance. As indicated by the above percentages, the borrower-income comparisons between Fannie Mae and Freddie Mac change when the analysis switches from their acquisitions of only home purchase loans to their acquisitions of both home purchase and refinance loans. Consider the special affordable income category for 1997 and 1998. As shown in Table A.4a, special affordable loans accounted for a much higher percentage of Fannie Mae's acquisitions of home purchase loans than of Freddie Mac's in each of these two years. Similarly, in 1997, special affordable loans accounted for 11.5 percent of Fannie Mae's total (both home purchase and refinance) purchases, compared with 9.9 percent of Freddie Mac's total purchases. However, between 1997 and 1998, the special affordable percentage of Freddie Mac's total purchases increased from 9.9 percent to 10.9 percent, while the corresponding percentage for Fannie Mae actually declined from 11.5 percent to 11.1 percent. Thus, in 1998, Freddie Mac's overall special affordable percentage (10.9 percent) was approximately the same as Fannie Mae's (11.1 percent).

Further analysis shows that this improvement of Freddie Mac relative to Fannie Mae was due to Freddie Mac's better performance on refinance loans during 1998. The special affordable percentage of Fannie Mae's refinance loans fell from 11.1 percent in 1997 to 9.7 percent in 1998, which is not surprising given that middle- and upper-income borrowers typically dominate heavy refinance markets such as 1998. But the special affordable percentage of Freddie Mac's refinance loans did not drop very much, falling from 11.3 percent in 1997 to 10.7 percent in 1998.[170] Thus, Freddie Mac's

[168] See Scheessele (1999), op. cit. As explained in Appendix D of Scheessele's paper, the number of subprime lenders varies by year; the 200 figure cited in the text applies to 1998. The number of loans identified as subprime in these appendices is the same as reported by Scheessele in Table D.2b of his paper.

[169] Table A.1b in Section C.3.b provides several comparisons of the GSE's total purchases with primary market originations. As shown there, many of the same patterns described above for home purchase loans can be seen in the data for the GSEs' total purchases.

[170] In general, the HMDA-reported affordability percentages for GSE purchases of refinance loans have matched the corresponding GSE-reported percentages. For example, in 1997, both GSEs reported to HUD that special affordable loans accounted for about 11 percent of their purchases of refinance loans in metropolitan areas; HMDA reported the same percentage for each GSE. Similarly, in 1998, both HMDA and Fannie Mae

Continued

higher special affordable percentage (10.7 percent versus 9.7 percent for Fannie Mae) on refinance loans in 1998 enabled Freddie Mac to close the gap between its overall single-family performance and that of Fannie Mae.

The GSEs' underserved areas percentages followed a somewhat similar pattern as their special affordable percentages between 1997 and 1998. In 1997, Freddie Mac's underserved area percentage (21.6 percent) for total purchases was significantly less than Fannie Mae's (23.6), but in 1998, Freddie Mac's underserved areas percentage (20.9) was about the same as Fannie Mae's (21.2 percent). This convergence was mainly due to a sharper decline in Fannie Mae's underserved area percentage for refinance loans between 1997 and 1998.

B&C Loans. Section E.2.c showed that the estimates for the home purchase market did not change much when loans for subprime lenders were excluded from the HMDA analysis; the reason was that these lenders operate primarily in the refinance market. In this section's analysis of the total market (including refinance loans), one would expect the treatment of subprime lenders to significantly affect the market estimates. For the year 1997, excluding subprime lenders reduced the goal-qualifying shares of the total market as follows: special affordable (from 16.3 to 14.8 percent); low-mod (from 43.6 to 41.9 percent); and underserved areas (from 27.8 to 25.5 percent). Similarly, for the year 1998, excluding 200 subprime lenders reduced the goal-qualifying shares of the total market as follows: special affordable (from 14.3 to 12.7 percent); low-mod (from 41.0 to 39.0 percent); and underserved areas (from 24.8 to 22.6 percent). As discussed earlier, the GSEs have been entering the subprime market over the past two years, particularly the A-minus portion of that market. Industry observers estimate that A-minus loans account for at least half of all subprime loans while the more risky B&C loans account for the remaining half. Thus, one proxy for excluding B&C loans originated by the 200 specialized lenders from the overall market benchmark might be to reduce the goal-qualifying percentages from the HMDA data by half the above differentials; accounting for B&C loans in this manner would reduce the 1998 HMDA-reported goal-qualifying shares of the total conforming market as follows: special affordable (from 14.3 to 13.5 percent); low-mod (from 41.0 to 40.0 percent); and underserved areas (from 24.8 to 23.7 percent). However, as discussed in Appendix D, much uncertainty exists about the size of the subprime market and its different components. More data and research are obviously needed on this growing sector of the mortgage market.[171]

f. GSE Mortgage Purchases in Individual Metropolitan Areas

While the above analyses, as well as earlier studies,[172] concentrate on national-level data, it is also instructive to compare the GSEs' purchases of mortgages in individual metropolitan areas (*e.g. MSAs*). In this section, the GSEs' purchases of single-family owner-occupied home purchase loans are compared to the market in individual MSAs.[173] To do so, total primary market mortgage originations from two years, 1995 and 1996, are summed up by year, by MSA, and for GSE purchases of these loans. The GSEs' purchases of 1995 originations include all 1995 originations purchased by each GSE between 1995 and 1998 from 324 MSAs. For their purchases of 1996 originations, all 1996 originations purchased between 1996 and 1998 from 326 MSAs are included. This should cover 90 to 95 percent of the 1995 and 1996 originated loans that will be purchased by the GSEs, thus making the GSE data comparable to HMDA market data. The loans are then grouped by the GSE housing goal categories for which they qualify and the ratio of the housing goal category originations to total originations in each MSA is calculated for each GSE and the market. The GSE-to-market ratio is then calculated by dividing each GSE ratio by the corresponding market ratio. For example, if it is calculated that one of the GSEs' purchases of Low- and Moderate-Income loans in a particular MSA is 47 percent of their overall purchases in that MSA, while 49 percent of all originations in that MSA are Low-Mod, then that GSE-to-market ratio is 47/49 (or 0.96).

Table A.5 shows the performance of the GSEs by MSA for 1995 and 1996 originations of home purchase loans. A GSE's performance is determined to be lagging the market if the ratio of the GSE housing goal loan purchases to their overall purchases is less than 99 percent of that same ratio for the market.[174] For the above example, that GSE is considered to be lagging the market. These results are then summarized in Table A.5, which reports the number of MSAs in which each GSE under-performs the market with respect to the housing goal categories.

BILLING CODE 4210–27–P

reported that special affordable loans accounted for 9.7 percent of Fannie Mae's refinance purchases. However, in 1998, the Freddie-Mac-reported special affordable percentage (10.7 percent) for its refinance loans was significantly higher than the corresponding percentage (9.5 percent) reported in the HMDA data. The reasons for this discrepancy require further study.

[171] The Mortgage Information Corporation (MIC) has recently started publishing origination and default performance data for the subprime market. For an explanation of their data and some early findings, see Dan Feshbach and Michael Simpson, ''Tools for Boosting Portfolio Performance'', *Mortgage Banking: The Magazine of Real Estate Finance,* (October 1999), pp. 137–150.

[172] For example, see Bunce and Scheessele (1996 and 1998), op. cit.

[173] This analysis is limited to the conventional conforming market.

[174] This analysis was also conducted where the ''lag'' determination is made at 95 percent. The results are consistent with those shown in Table A.5. For example, at the 95 percent cutoff, Fannie Mae lagged the market in 275 MSAs (85 percent) in the purchase of 1995 originated Special Affordable category loans. Likewise, Freddie Mac lagged the market in 320 MSAs (99 percent).

Table A.5

Analysis of GSEs' Purchases Across MSAs by Housing Goal Category

1995 Originations

	Underserved Areas		Low-Mod Income		Special Affordable	
Number of MSAs Analyzed	324	100.0%	324	100.0%	324	100.0%
Fannie Mae lags the Market	239	73.8%	264	81.5%	287	88.6%
Freddie Mac lags the Market	300	92.6%	319	98.5%	321	99.1%
Fannie Mae lags Freddie Mac	65	20.1%	26	8.0%	37	11.4%
Freddie Mac lags Fannie Mae	245	75.6%	295	91.0%	281	86.7%

1996 Originations

	Underserved Areas		Low-Mod Income		Special Affordable	
Number of MSAs Analyzed	326	100.0%	326	100.0%	326	100.0%
Fannie Mae lags the Market	266	81.6%	285	87.4%	295	90.5%
Freddie Mac lags the Market	297	91.1%	323	99.1%	323	99.1%
Fannie Mae lags Freddie Mac	95	29.1%	54	16.6%	57	17.5%
Freddie Mac lags Fannie Mae	220	67.5%	261	80.1%	259	79.4%

Source: Fannie Mae and Freddie Mac data include information on all of their purchases for the years 1995 through 1998 and are from the loan-level data they provide to HUD. The conforming market data are originations as reported by HMDA; loans with a loan-to-income ratio greater than six are excluded from Low-Mod Income and Special Affordable categories.

Notes: The GSE loans in this analysis include all single-family owner-occupied conventional conforming home purchase mortgages in metropolitan areas (as defined by OMB in 1995 or 1996) purchased by the GSE between 1995 (1996) and 1998 but were originated during 1995 (1996).

A GSE is determined to lag the market (other GSE) if the ratio of its category share to the market (other GSE) category share is less than 99%.

Exceptions to the "lag" determination:

When there are less than 5 reported category loans in the HMDA data and less than 5 category loans from only one of the GSEs, that GSE will count as approximating the market regardless of calculated ratio.

When there are more than 5 reported category loans in the HMDA data and less than 5 category loans from each of the GSEs, it will count as Fannie Mae approximating Freddie Mac regardless of calculated ratio.

For 1995 originations, Fannie Mae:

(i) Lagged the market in 239 (74 percent) of the MSAs in the purchase of Underserved Area loans,

(ii) Lagged the market in 264 (82 percent) of the MSAs in the purchase of Low- and Moderate-Income loans, and

(iii) Lagged the market in 287 (89 percent) of the MSAs in the purchase of Special Affordable loans.

Freddie Mac lagged the market to an even greater extent in 1995. Specifically, the market outperformed Freddie Mac in:

(i) 300 (93 percent) of the MSAs in the purchase of Underserved Area loans,

(ii) 319 (99 percent) of the MSAs in the purchase of Low- and Moderate-Income loans, and

(iii) 321 (99 percent) of the MSAs in the purchase of Special Affordable loans.

Thus Freddie Mac was behind Fannie Mae in at least three-quarters of the MSAs for all three goal categories. As shown in Table A.5, the results for loans originated in 1996 are similar.

g. High Down Payments on GSEs' Lower-Income Loans

Recent studies have raised questions about whether the lower-income loans purchased by the GSEs are adequately meeting the needs of some lower-income families. In particular, the lack of funds for down payments is one of the main impediments to homeownership, particularly for many lower-income families who find it difficult to accumulate enough cash for a down payment. As this section explains, a noticeable pattern among lower-income loans purchased by the GSEs is the predominance of loans with high down payments.

HUD's 1996 report to Congress on the possible privatization of Fannie Mae and Freddie Mac [175] found, rather surprisingly, that the mortgages taken out by lower-income borrowers and purchased by the GSEs were as likely to have high down payments as the mortgages taken out by higher-income borrowers and purchased by the GSEs. For example, considering the GSEs' purchases of home purchase loans in 1995, 58 percent of very low-income borrowers made a down payment of at least 20 percent, compared with less than 50 percent of borrowers from other groups. In addition, a surprisingly large percentage of the GSEs' first-time homebuyer loans had high down payments. In 1995, 35 percent of Fannie Mae's and 41 percent of Freddie Mac's first-time homebuyer loans had down payments of 20 percent or more.

Table A.6 presents similar data for the GSEs purchases total loans during 1997. Over three-fourths of the GSEs very low-income loans had a down payment more than 20 percent. Essentially, the GSEs have been purchasing lower-income loans with large down payments.[176]

[175] *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility.* Office of Policy Development and Research, Department of Housing and Urban Development, (July 1996).

[176] The Treasury Department reached similar conclusions in its 1996 report on the privatization of the GSEs, *Government Sponsorship of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation,* U.S. Department of the Treasury (July 11, 1996). Based on data such as the above, the Treasury Department questioned whether the GSEs were influencing the availability of affordable mortgages and suggested that the lower-income loans purchased by the GSEs would have been funded by private market entities if the GSEs had not purchased them.

Table A.6

Down Payment Characteristics of GSE Purchases, 1997

	Size of Down Payment				
GSE Purchases	Less Than 5 Percent Down	5 to 10 Percent Down	10 to 20 Percent Down	20 Percent or More Down	Total [1]
All Loans	36,703	328,467	365,981	1,638,798	2,369,949
Very- Low-Income Loans	7,841	19,945	20,129	158,584	206,499
Less- Than-Median Income Loans	28,383	105,245	114,604	599,257	847,489
Percentage Distribution					
All Loans	1.5%	13.9%	15.4%	69.1%	100.0%
Very- Low-Income Loans	3.8%	9.7%	9.7%	76.8%	100.0%
Less- Than-Median- Income Loans	3.3%	12.4%	13.5%	70.7%	100.0%

Source: Data include all owner-occupied one-unit mortgages (home purchase, refinance, and second loans) purchased by the GSEs in 1997.

[1] Loans with missing down payments are excluded.

BILLING CODE 4210–27–C

The evidence is similar when the data are examined for each GSE separately. Between 1993 and 1997, 71 percent of all one-family owner-occupied loans bought by Fannie Mae, had an LTV less than or equal to 80 percent. Only 13 percent had an LTV greater than 90 percent (one percent with LTVs greater than 95 percent). For Freddie Mac, 75 percent of loans bought had an LTV less than or equal to 80 percent, while 10 percent had LTVs greater than 90 percent. Only one-eighth of one percent of Freddie Mac's loans had an LTV greater than 95 percent. For very low-income loans purchased by Fannie Mae, during the same period, 75 percent had a down payment greater than 20 percent. Large down payment loans accounted for 82 percent of Freddie Mac's purchases of very-low income borrower loans. Thus, these results are consistent with previous studies that show that the proportion of large down payment loans purchased by the GSEs from lower-income borrowers is greater than that for all loans purchases.[177]

As discussed in Section C, Both Fannie Mae and Freddie Mac have introduced high-LTV products: ''Flexible 97'' and ''Alt 97'' respectively. By lowering the required down payment to three percent and adding flexibility to the source of the down payment, these loans should be more affordable. The down payment, as well as closing costs, can come from, gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets. However, in order to control default risk, these loans also have stricter credit history requirements.

Fed Study. An important study by three economists—Glenn Canner, Wayne Passmore and Brian Surette [178]— at the Federal Reserve Board showed the implications of the GSEs' focus on high down payment loans. Canner, Passmore, and Surette examined the degree to which different mortgage market institutions—the GSEs, FHA, depositories and private mortgage insurers—are taking on the credit risk associated with funding affordable mortgages. The authors combined market share and down payment data with data on projected foreclosure losses to arrive at an estimate of the credit risk assumed by each institution for each borrower group. This study found that Fannie Mae and Freddie Mac together provided only 4 to 5 percent of the credit support for lower-income and minority borrowers and their neighborhoods. The relatively small role of the GSEs providing credit support is due to their low level of funding for these groups and to the fact that they purchase mainly high down payment loans. FHA, on the other hand, provided about two-thirds of the credit support for lower-income and minority borrowers, reflecting FHA's large market shares for these groups and the fact that most FHA-insured loans have less-than-five-percent down payments.

3. Other Studies of the GSEs Performance Relative to the Market

This section summarizes briefly the main findings from other studies of the GSEs' affordable housing performance. These include studies by the HUD and the GSEs as well as studies by academics and research organizations.

a. Studies by Bunce and Scheessele

Harold Bunce and Randall Scheessele of the Department have published two studies of affordable lending. In December 1996, they published a study titled *The GSEs' Funding of Affordable Loans.*[179] This report analyzed HMDA data for 1992–95, including a detailed comparison of the GSEs' purchases with originations in the primary market. In July 1998, they updated their earlier study to analyze the mortgage market and the GSEs' activities in 1996.[180] The findings were largely similar in both studies: [181]

(i) Both GSEs lagged the primary conventional market, depositories, and (particularly) FHA in funding mortgages for lower-income and historically underserved borrowers. FHA stands out as the major funder of affordable loans. In 1996, approximately 30 percent of FHA-insured loans were for African-American and Hispanic borrowers, compared with only 10 percent of the loans purchased by the GSEs or originated in the conventional market.

(ii) The two GSEs show very different patterns of lending—Fannie Mae is much more likely than Freddie Mac to serve underserved borrowers and their neighborhoods. Since 1992, Fannie Mae has narrowed the gap between its affordable lending performance and that of the other lenders in the conforming market. Freddie Mac's improvement has been more mixed—in some cases it has improved slightly relative to the market but in other cases it has actually declined relative to the market. The findings with respect to Freddie Mac are similar to those discussed earlier in Section E.2.c.

b. Studies by Freddie Mac

In 1995 Freddie Mac published *Financing Homes for A Diverse America,* which contained a wide variety of statistics and charts on the mortgage market. Several of the exhibits contained comparisons between the primary mortgage market and Freddie Mac's purchases in 1993 and 1994:

(i) While not asserting strict parity, this report presented comparable frequency distributions of primary market originations and Freddie Mac's purchases by borrower and census tract income, concluding that Freddie Mac ''finances housing for Americans of all incomes'' and it ''buys mortgages from neighborhoods of all incomes.''

(ii) With regard to minority share of census tracts, the report stated that Freddie Mac's ''share of minority neighborhoods matches the primary market.''

(iii) The report acknowledged that Freddie Mac's purchases did not match the primary market in terms of borrower race. It found that in 1994 African-Americans and Hispanics each accounted for 4.9 percent of the primary market but only 2.7 percent and 4.0 percent respectively of Freddie Mac's purchases. On the other hand, Whites and Asian Americans accounted for 83.7 percent and 3.2 percent of the primary market, but 86.3 percent and 3.9 percent respectively of Freddie Mac's acquisitions.

In its March 1998 Annual Housing Activities Report (AHAR) submitted to the Department and Congress, Freddie Mac presented data on this issue for 1996 and 1997. This report stated that its purchases ''essentially mirror[ed] the overall distribution of mortgage originations in terms of borrower income.'' However, the data underlying Exhibit 4 of the AHAR indicated that the share of Freddie Mac's 1997 purchases for borrowers with income (in 1996 dollars) less than $40,000 was more than 4 percentage points below the corresponding share for the primary market in 1996. A similar pattern prevailed in terms of census tract income—the data underlying Exhibit 5 of the AHAR indicated that the share of Freddie Mac's 1997 purchases in tracts with income in excess of 120 percent of area median income exceeded the corresponding share for the primary market in 1996 by about 4 percentage points.

In its March 1998 AHAR, Freddie Mac found a much closer match between the distributions of home purchase mortgages by down payment for Freddie Mac's 1997 acquisitions and the primary market in 1997, as the latter was reported by the Federal Housing Finance Board. Specifically, Exhibit 6 of the AHAR reported that 42 percent of borrowers in each category made down payments of less than 20 percent.[182]

c. Studies by Fannie Mae

Fannie Mae has not published any studies on the comparability of its mortgage purchases with the primary market. However, in an October 1998 briefing for

[177] See Glenn B. Canner, and Wayne Passmore. ''Credit Risk and the Provision of Mortgages to Lower-Income and Minority Homebuyers,'' *Federal Reserve Bulletin.* 81 (November 1995), pp. 989–1016; Glenn B. Canner, Wayne Passmore and Brian J. Surette. ''Distribution of Credit Risk among Providers of Mortgages to Lower-Income and Minority Homebuyers.'' *Federal Reserve Bulletin.* 82 (December 1996), pp. 1077–1102; Harold L. Bunce, and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans: A 1996 Update,* Housing Finance Working Paper HF–005, Office of Policy Development and Research, Department of Housing and Urban Development, (July 1998); and Manchester, (1998), p. 24.

[178] Canner, et al. (1996).

[179] Harold L. Bunce and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans,* Housing Finance Working Paper HF–001, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (December 1996).

[180] Harold L. Bunce and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans: A 1996 Update,* Housing Finance Working Paper HF–005, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (July 1998), pp. 15–16.

[181] Statistics cited are from Table B.1 of Bunce and Scheessele, (1998) and are based on sales to the GSEs as reported by lenders in accordance with the HMDA. ''Lagging the market'' means, for example, that the percentage of the GSEs' loans for very low- and low-income borrowers is less than the corresponding percentage for the primary market, depositories, and the FHA.

[182] Under their charter acts, loans purchased by the GSEs with down payments of less than 20 percent must carry private mortgage insurance or a comparable form of credit enhancement.

HUD staff, Fannie Mae presented the results of several comparisons of its purchases, based on the data supplied to the Department by Fannie Mae, with loans originated in the conventional conforming market, based on the HMDA data. In these analyses, Fannie Mae stated that:

(i) The percentage of Fannie Mae's home purchase loans serving minorities exceeded the corresponding percentage in the conventional conforming market by 2.6 percentage points in 1995, 2.0 percentage points in 1996, and 2.7 percentage points (18.6 percent vs. 15.9 percent) in 1997;

(ii) The percentage of Fannie Mae's home purchase loans for low- and moderate-income households exceeded the corresponding percentage in the conventional conforming market by 0.2 percentage point in 1995, fell 0.1 percentage point short of the market in 1996, but exceeded it again, by 1.2 percentage points (38.5 percent vs. 37.3 percent), in 1997;

(iii) The percentage of Fannie Mae's home purchase loans for households in underserved areas fell 0.04 percentage point short of the conventional conforming market in 1996, but exceeded the corresponding percentage in the conventional conforming market by 1.4 percentage points (25.5 percent vs. 24.1 percent) in 1997;

(iv) The percentage of Fannie Mae's home purchase loans for very low-income households and low-income households in low-income areas fell 1.0 percentage point short of the of the conventional conforming market in 1995 and 0.9 percentage point short in 1996, but exceeded the corresponding percentage in the conventional conforming market by 2.2 percentage points (12.7 percent vs. 10.5 percent) in 1997.

Some of these findings by Fannie Mae differ from those of other researchers. This is due in part to the fact that most other studies have utilized HMDA data for both the primary market and sales to the GSEs, but Fannie Mae compared the primary market, based on HMDA data, with the patterns in the GSE loan-level data submitted to the Department.[183] [184]

d. Other Studies

Lind. John Lind examines HMDA data in order to compare the GSEs' loan purchase activity to mortgage originations in the primary conventional conforming market.[185] Like other studies, Lind presents an aggregate comparison of GSE/primary market correspondence for Black, Hispanic, low-income borrowers, and low- and moderate-income Census tracts. Unlike other studies, however, Lind also examines market correspondence at the individual metropolitan area and regional levels.

Lind finds that the GSEs are not leading the market, but that Fannie Mae, in particular, improved its performance between 1993 and 1994. In 1994, Lind finds that the shares of Fannie Mae's home purchase loans to minority and low-income borrowers were comparable to the industry's shares. But the share of its home purchase loans for low- and moderate-income census tracts and the shares of Freddie Mac's home purchase loans for all categories examined trailed those for the industry as a whole. For refinance mortgages, on the other hand, both GSEs trailed the industry in terms of the shares of their loans for the groups analyzed. In a subsequent study, Lind found that the difference between the affordable lending performance of Fannie Mae and Freddie Mac was caused by differences in policy and operating procedures of the GSEs, and not differences in the make-up of their suppliers of loans.[186]

Ambrose and Pennington-Cross. There exists a wide variation in the market shares of the GSEs, FHA and portfolio lenders across geographic mortgage markets. Brent Ambrose and Anthony Pennington-Cross analyze FHA, GSE and portfolio lender market shares to find insights into what factors affect the market shares for FHA eligible (under the FHA loan limit) loans.[187] They hypothesize that the GSEs try to mitigate higher perceived risks at the MSA level by tightening lending standards, generating a prediction of higher FHA market share in locations with characteristically higher or dynamically worsening risk. A second hypothesis is that market share of portfolio lenders increases in areas with higher risk due to ''reputation effects'' and GSE repurchase requirements. In their model, they account for cyclical risk, permanent risk, demographic, lender and regional differences.

Ambrose and Pennington-Cross found that the GSEs exhibit risk averse behavior as evidenced by lower GSE market presence in MSAs experiencing increasing risk and in MSAs that historically exhibit high-risk tendencies. FHA market shares, in contrast, are associated with high or deteriorating risk conditions. Portfolio lenders increase their mortgage portfolios during periods of economic distress, but increase the sale of originations out of portfolio during periods of increasing house prices. Lenders in MSAs with historically high delinquency hold more loans in portfolio. MSA risk is therefore concentrated among portfolio lenders and in FHA, with the GSEs bearing relatively little credit risk of this kind. The study does find that, other things being equal, the GSEs do have a higher presence in underserved areas and in areas where the minority population is highly segregated.

MacDonald (1998). Heather MacDonald[188] examined the impact of the central city housing goal from HUD's 1993–1995 interim housing goals. Census tracts were clustered according to five variables (median house value, median house age, proportion of renters, percent minority and proportion of 2 to 4 units) argued to impede secondary market purchases of homes in some neighborhoods. Borrower characteristics and lending patterns were compared across the clusters of tracts, and across central city and suburban tracts. Clustered tracts were found to be more strongly related to a set of key lending variables than are tracts divided according to central city/suburban boundaries. MacDonald concludes that targeting affirmative lending requirements on the basis of neighborhood characteristics rather than political or statistical divisions may provide a more appropriate framework for efforts to expand access to credit.

MacDonald (1999). In a 1999 study, Heather MacDonald investigated variations in GSE market share among a sample of 426 nonmetropolitan counties in eight census divisions.[189] Conventional conforming mortgage originations were estimated using residential sales data, adjusted to exclude government-insured and nonconforming loans. Multivariate analysis was used to investigate whether GSE market shares differed significantly by location, after controlling for the economic, demographic, housing stock and credit market differences among counties that could affect use of the secondary markets. The study also investigated whether there were significant differences between the nonmetropolitan borrowers served by Fannie Mae and those served by Freddie Mac.

MacDonald found that space contributes significantly to explaining variations in GSE market shares among nonmetropolitan counties, but its effects are quite specific. One region—non-adjacent West North Central counties—had significantly lower GSE market shares than all others. The disparity persisted when analysis was restricted to underserved counties only. The

[183] It is generally agreed that HMDA does not capture all loans originated in the primary market—for example, small lenders need not report under HMDA. But Fannie Mae believes that the undercount is not spread uniformly across all borrower classes—in particular, it argues that the HMDA data exclude relatively more loans made to minorities and lower-income families.

[184] Bunce and Scheessele (1998) contained a comparison (Table A.1) of HMDA-reported and GSE-reported data on the characteristics of GSE mortgage purchases in 1996. In most cases the differences between the results utilizing the two different data sources were minimal, but in some cases (such as lending in underserved areas) the evidence lent some support to Fannie Mae's assertion that the HMDA data underreports their level of activity. The discrepancies between HMDA data and GSE data at the national level are also due to the seasoned loan effect (see Section E.2.e above and Table A.4a).

[185] John E. Lind. *Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac from the 1994 HMDA Data.* San Francisco: Caniccor. Report, (February 1996).

[185] John E. Lind. *Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac from the 1994 HMDA Data.* San Francisco: Caniccor. Report, (February 1996).

[186] John E. Lind. *A Comparison of the Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac Portfolios by Supplier from the 1994 HMDA Data.* San Francisco: Cannicor. Report, (April 1996).

[187] Brent W. Ambrose and Anthony Pennington-Cross, *Spatial Variation in Lender Market Shares,* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[188] Heather MacDonald. ''Expanding Access to the Secondary Mortgage Markets: The Role of Central City Lending Goals,'' *Growth and Change.* (27), (1998), pp. 298–312.

[189] Heather MacDonald, *Fannie Mae and Freddie Mac in Non-metropolitan Housing Markets: Does Space Matter,* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

study also suggested significant disparities between the income levels of the borrowers served by each agency, with Freddie Mac buying loans from borrowers with higher incomes than the incomes of borrowers served by Fannie Mae. An important limitation on any study of nonmetropolitan mortgages was found to be the lack of Home Mortgage Disclosure Act data. This meant that more precise conclusions about the extent to which the GSEs mirror primary mortgage originations in nometropolitan areas could not be reached.

McClure. Kirk McClure examined the twin mandates of FHEFSSA: To direct mortgage credit to neighborhoods that have been underserved by mortgage lenders; and to direct mortgage credit to low-income and minority households.[190] Using the Kansas City metropolitan area as a case study, mortgages purchased by the GSEs in 1993–96 were compared with mortgages held by portfolio lenders in order to determine the performance of the GSEs in serving these two objectives. Kansas City provides a useful case study area for this analysis, because it includes a range of weak and strong housing market areas where homebuyers have been able to move easily to serve their housing, employment, and neighborhood needs.

McClure found that borrowers are better served if credit is directed to them independent of location. Very low-income and minority borrowers fared better, in terms of the demographic, housing, and employment opportunities of the neighborhoods into which they located, than borrowers in underserved neighborhoods, suggesting that directing credit to low-income and minority households has had the desired effect of helping these households purchase homes in areas where they would find good homes and good employment prospects. According to McClure, HUD's 1996–99 housing goals defined underserved tracts very broadly, such that nearly one-half of the tracts in the Kansas City area are categorized as underserved. Because the definition of underserved is so broad, directing credit to these tracts means only increasing the flow of mortgage credit to the lesser one-half of all tracts, which includes many areas with stable housing stocks and viable job markets. The alternative approach of directing credit to underserved areas was found to be helpful only insofar as it has helped direct credit to neighborhoods with slightly lower household income levels and higher incidence of minorities than found elsewhere in the metropolitan area. McClure concluded that neighborhoods that receive very low levels of mortgage credit seemed to provide insufficient housing or employment opportunities to justify the effort that would be required to direct additional mortgage credit to them.

McClure concluded that whatever the approach, the GSEs have not been performing as well as the primary credit lenders in the Kansas City metropolitan area. In terms of helping underserved areas, the GSEs lagged behind the industry in the proportion of loans found in these areas. In terms of helping low-income and minority borrowers, the GSEs also lagged behind the industry. However, to the extent that the GSEs served these targeted populations, these households used this credit to move to neighborhoods with better housing and employment opportunities than were generally present in the underserved areas.

Williams.[191] This study looks at mortgage lending in underserved markets in the primary and secondary mortgage markets for the MSAs in Indiana. A more extensive analysis is provided for South Bend/St. Joseph County, Indiana that looks at the GSE purchases in underserved markets by type of primary market lender in both 1992 and 1996. It shows the percentage of loans bought by the GSEs and the loan they did not buy. This study found that the GSEs were more aggressive in closing the gap in St. Joseph County than in other MSAs in Indiana. It also found that Fannie Mae's underserved market performance was slightly better than Freddie Mac's performance.

Williams compared the GSEs performance in underserved markets and CRA institutions between 1992 and 1995. It shows that the GSEs have narrowed the gap between themselves and lenders while CRA institutions have lost ground relative to non-CRA lenders. A pattern observed across all Indiana MSAs is that the GSEs do not appear to lead the market but rather almost perfectly mirrored the performance of mortgage companies.

Williams looked at the impact of size and location of lenders on the home mortgage market. Large lenders were more likely to finance mortgages for very low-income and African American borrowers than smaller lenders. Lenders headquartered in Indiana were more likely to purchase mortgages in underserved areas than lenders who only had branches or no apparent physical presence in Indiana. This suggests that served markets might benefit more than underserved areas from increased competition from non-local lenders.

Gyourko and Hu. This study focuses on the GSEs' housing goals looking at the intra-metropolitan distribution of mortgage acquisitions by Fannie Mae and Freddie Mac and the spatial distribution of households within 22 MSAs.[192] The data on the GSEs' mortgage purchases is provided by the Census Tract File of Public Use Data Base and data on households is provided by the 1990 census. The study found that the distribution of goal-qualifying loan purchases by the GSEs does not match the distribution of goal-qualifying households. On average 44 percent of Low- and Moderate-Income Goal and 46 percent of Special Affordable Goal qualifying households are located in central cities. This compares to the GSEs' mortgage purchases where 26 percent of Low- and Moderate-Income Goal and 36 percent of Special Affordable Goal were located in central cities.

This study develops criteria for evaluating the GSEs' mortgage purchasing performance in census tracts. The first measure is a ratio. The numerator of the ratio is the share of the GSEs' mortgage purchases that qualify for the Special Affordable Housing Goal in the census tract. The denominator is the share of households that are targeted by the Special Affordable Housing Goal in the census tract. A ratio is also computed for the Low- and Moderate-Income Housing Goal. If the ratio is less than 0.80 then the census tract is called under-represented, meaning that the share of the GSEs' mortgage purchases which qualify for the housing goal is less than 80 percent of the share of the households that the goal targets. The analysis of these ratios shows that: (1) Central cities are more likely to be under-represented in terms of the share of affordable loans purchased by the GSEs, (2) in suburbs, the larger the census tracts' percent minority the greater the probability that affordable loan purchases are under-represented, and (3) the higher the tract's median income, the greater the likelihood that census tract is over-represented.

Gyourko and Hu's results are broadly consistent across the 22 MSAs analyzed; however, some noteworthy exceptions are made. In a few MSAs, particularly Miami and New York, the mismatch of affordable GSE purchases to affordable households is much less severe. In Boston, Los Angeles and New York, census tracts with higher relative median incomes are more likely to be under-represented.

4. GSEs' Underwriting Guidelines

Most studies on affordability of mortgage loans are quantitative using HMDA data, HUD's GSE Public Use Database or some other related database. To complement these studies, HUD commissioned a study by the Urban Institute (UI) to examine recent trends in the GSEs' underwriting criteria and to seek attitudes and opinions of informed players in four local mortgage market markets (Boston, Detroit, Miami and Seattle).[193] Interviews were conducted with mortgage lenders, community advocates and local government officials—all local actors who would be knowledgeable about the impact of the GSEs' underwriting policies on their ability to fund affordable loans for lower-income borrowers.

The UI report reveals three major trends in the GSEs' underwriting that affects affordable lending. These include increased flexibility in standard [194] underwriting and appraisal guidelines, the introduction of affordable lending products, and the introduction of

[190] Kirk McClure, *The Twin Mandates Given to the GSEs: Which Works Best, Helping Low-Income Homebuyers or Helping Underserved Areas in the Kansas City Metropolitan Area?* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[191] Richard Williams, "*The Effect of GSEs, CRA, and Institutional Characteristics on Home Mortgage Lending to Underserved Markets,*" Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, 1999).

[192] Joseph Gyourko and Dapeng Hu. *The Spatial Distribution of Secondary Market Purchases in Support of Affordable Lending,* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[193] Kenneth Temkin, Roberto Quercia, George Galster and Sheila O'Leary. *A Study of the GSE's Single Family Underwriting Guidelines: Final Report.* Washington DC: U.S. Department of Housing and Urban Development, (April 1999).

[194] Standard guidelines refer to guidelines not associated with affordable lending programs.

automated underwriting and credit scores in the loan application process. Through these trends, Fannie Mae and Freddie Mac have attempted to increase their capacity to serve low- and moderate-income homebuyers. They are also eliminating practices that could potentially have had disparate impacts on minority homebuyers. While both GSEs have made progress, ''most [of those interviewed] thought Fannie Mae has been more aggressive than Freddie Mac in outreach efforts, implementing underwriting changes and developing new products.'' [195]

While the GSEs improved their ability to serve low- and moderate-income borrowers, it does not appear that they have gone as far as some primary lenders to serve these borrowers and to minimize the disproportionate effects on minority borrowers. From previous published analyses of the GSEs' mortgage purchases, differences between the income characteristics and racial composition of borrowers served by the primary mortgage market and the purchase activity of the GSEs were found. ''This means that the GSEs are not serving lower-income and minority borrowers to the extent these families receive mortgages from primary lenders.'' [196] From UI's discussions with lenders, it was revealed that primary lenders are originating mortgages to lower-income borrowers using underwriting guidelines that allow lower down payments, higher debt-to-income ratios and poorer credit histories than allowed by the GSEs' guidelines. These mortgages are originated to a greater extent to minority borrowers who have lower incomes and wealth. From this evidence, UI concludes that the GSEs appear to be lagging the market in servicing low- and moderate-income and minority borrowers.

Furthermore, UI found ''that the GSEs'' efforts to increase underwriting flexibility and outreach has been noticed and is applauded by lenders and community advocates. Despite the GSEs' efforts in recent years to review and revise their underwriting criteria, however, they could do more to serve low- and moderate-income borrowers and to minimize disproportionate effects on minorities. Moreover, the use of automated underwriting systems and credit scores may place lower-income borrowers at a disadvantage when applying for a loan, even though they are acceptable credit risks.'' [197]

5. The GSEs' Support of the Mortgage Market for Single-family Rental Properties

Single-family rental housing is an important part of the housing stock because it is an important source of housing for lower-income households. Based on the 1995 American Housing Survey, 62 percent of all rental units are in structures with fewer than five units and approximately 57 percent of the stock of single-family rental units are affordable to very-low income families (*i.e.*, families earning 60 percent or less of the area median income). Of the GSEs' mortgage purchases in 1997, around 34 percent of the single-family rental units financed were affordable to very-low income households.

While single-family rental properties are a large segment of the rental stock for low-income families, they make up a small portion of the GSEs' overall business. In 1997, Fannie Mae and Freddie Mac purchased more than $11 billion in mortgages for these properties. These purchases represented 4 percent of the total dollar amount of their overall 1997 business.

It follows that since single-family rentals make up such a small part of the GSEs business, they have not penetrated the single-family rental market to the same degree that they have penetrated the owner-occupant market. Table A.7 in Section G shows that in 1997 the GSEs financed 49 percent of owner-occupied dwelling units but only 13 percent of single-family rental units.

There are a number of factors that have limited the development of the secondary market for single-family rental property mortgages thus explaining the lack of penetration by the GSEs. Little is collectively known about these properties as a result of the wide spatial dispersion of properties and owners, as well as a wide diversity of characteristics across properties and individuality of owners. This makes it difficult for lenders to properly evaluate the probability of default and severity of loss for these properties.

Single-family rental properties are important for the GSEs housing goals, especially for meeting the needs of lower-income families. In 1997 around 70 percent of single-family rental units qualified for the Low-and Moderate-Income Goals, compared with 35 percent of one-family owner-occupied properties. This heavy focus on lower-income families meant that single-family rental properties accounted for 10 percent of the units qualifying for the Low- and Moderate-Income Goal, even though they accounted for only 7 percent of the total units (single-family and multifamily) financed by the GSEs. Single-family rental properties account for 12 percent of the geographically-targeted and 13 percent of the special affordable housing goals.

A comparison of the GSEs' single-family rental and one-family owner-occupied mortgage purchases reveals the following broad patterns of borrower and neighborhood characteristics. Borrowers for single-family rental properties are more likely to be minorities than borrowers for one-family owner-occupied properties. Mortgages purchased by the GSEs for single-family rental properties compared with one-family owner-occupied properties are more likely to be located in lower-income and higher minority neighborhoods. More single-family rental than one-family owner-occupied mortgages were refinance or prior-year loans.

A closer look at borrower characteristics for single-family rental properties shows the following. First, based on ethnic/racial characteristics, borrowers for investor-owned properties are similar to borrowers for one-family owner-occupied properties. Second, borrowers for single-family rental properties, especially owner-occupied 2- to 4-unit properties, are more likely to be nonwhite than are borrowers for one-family owner-occupied and investor-owned properties. About 37 percent of the borrowers for owner-occupied 2- to 4-unit properties are non-white compared with around 16 percent for both one-family and investor-owned properties. For one-family owner-occupied and investor-owned properties about 5 percent of borrowers are African American, compared with 9 percent for owner-occupied 2- to 4-unit properties. A similar comparison applies for Hispanic borrowers, 6 percent and 16 percent respectively.

With regard to neighborhood characteristics, a comparison of units in different types of rental properties purchased by the GSEs shows that investor 1-unit properties were more likely to be located in higher-income and lower-minority neighborhoods than were units in 2- to 4-unit rental properties. For units in investor 1-unit properties, about 19 percent were in low-income neighborhoods, compared with 34 percent from units in 2- to 4-unit rental properties. About 25 percent of investor 1-unit properties were in high-minority neighborhoods, compared with 36 percent for units in 2- to 4-unit rental properties. Units in 2- to 4-unit rental properties were commonly located in older cities where many low-income and high-minority neighborhoods are located. Investor 1-unit properties were more characteristic of suburban neighborhoods where smaller populations of minorities and higher income households reside.

The GSEs can mitigate risk by purchasing mortgages which are seasoned or refinanced. The data show that mortgages on properties with additional risk components such as being investor-owned, in low-income neighborhoods, and /or in high-minority neighborhoods are more likely to be seasoned or refinanced. For the GSEs' mortgage purchases, in general, mortgages on investor-owned properties are more likely to be prior-year than mortgages on owner-occupied 2- to 4-unit properties (based on unit counts). These patterns are consistent with the notion that investor properties are more risky than owner-occupied 2- to 4-unit properties.

F. Factor 4: Size of the Conventional Conforming Mortgage Market Serving Low- and Moderate-Income Families Relative to the Overall Conventional Conforming Market

The Department estimates that dwelling units serving low-and moderate-income families will account for 50–55 percent of total units financed in the overall conventional conforming mortgage market during 2000–2003, the period for which the Low-and Moderate-Income Housing Goals are hereby established. Due to uncertainty about future market conditions, HUD has provided a plausible range, rather than a point estimate, for the market. The detailed analyses underlying these estimates are presented in Appendix D.

G. Factor 5: GSEs' Ability To Lead the Industry

FHEFSSA requires the Secretary, in determining the Low- and Moderate-Income Housing Goal, to consider the GSEs' ability to ''lead the industry in making mortgage credit available for low-and moderate-income families.'' Congress indicated that this goal should ''steer the enterprises toward the

[195] Temkin, *et al.* (1999), p. 4.

[196] Temkin, *et al.* (1999), p. 5.

[197] Temkin, *et al.* (1999), p. 28.

development of an increased capacity and commitment to serve this segment of the housing market'' and that it ''fully expect[ed] [that] the enterprises will need to stretch their efforts to achieve [these goals].'' [198]

The Department and independent researchers have published numerous studies examining whether or not the GSEs have been leading the single-family market in terms of their affordable lending performance. This research, which is summarized in Section E, concludes that the GSEs have generally lagged behind other lenders in funding lower-income borrowers and their communities. As required by FHEFSSA, the Department has produced estimates of the portion of the total (single-family and multifamily) mortgage market that qualifies for each of the three housing goals (see Appendix D). Congress intended that the Department use these market estimates as one factor in setting the percentage target for each of the housing goals. The Department's estimate for the size of the Low-and Moderate-Income market is 50–55 percent, which is substantially higher than the GSEs' performance on that goal.

This section provides another perspective on the GSEs' performance by examining the share of the total mortgage market and the share of the goal-qualifying markets (low-mod, special affordable, and underserved areas) accounted for by the GSEs' purchases. This analysis, which is conducted by product type (single-family owner, single-family rental, and multifamily), shows the relative importance of the GSEs in each of the goal-qualifying markets.

1. GSEs' Role in Major Sectors of the Mortgage Market

Table A.7 compares GSE mortgage purchases with HUD's estimates of the numbers of units financed in the conventional conforming market during 1997.[199] HUD estimates that there were 7,443,736 owner and rental units financed by new mortgages in 1997. Fannie Mae's and Freddie Mac's mortgage purchases financed 2,893,046 dwelling units, or 39 percent of all dwelling units financed. As shown in Table A.7, the GSEs play a much smaller role in the goals-qualifying markets than they do in the overall market. During 1997, new mortgages were originated for 4,290,860 dwelling units that qualified for the low-and moderate-income goal; the GSEs low-mod purchases financed 1,305,505 dwelling units, or only 30 percent of the low-mod market. Similarly, the GSEs' purchases accounted for only 24 percent of the special affordable market and 33 percent of the underserved areas market.[200] Obviously, the GSEs are not leading the industry in financing units that qualify for the three housing goals.

BILLING CODE 4210–27–P

[198] Senate Report 102–282, (May 15, 1992), p. 35.

[199] Table A.7 considers GSE purchases during 1997 and 1998 of conventional mortgages that were originated in 1997. HUD's methodology for deriving the 1997 market estimations is explained in Appendix D. B&C loans have been excluded from the market estimates in Table A.7.

[200] Two caveats about the data in Table A.7 should be mentioned here. First, the various market totals for underserved areas are probably understated due to the model's underestimation of mortgage activity in non-metropolitan underserved counties and of manufactured housing originations in non-metropolitan areas. Second, as discussed in Appendix D, some uncertainty exists around the adjustment for B&C single-family owner loans.

Table A.7

Number of Units by Type in the 1997 Conventional Conforming Market Compared To Fannie Mae and Freddie Mac Purchases

	Single-Family Owner	Single-Family Rental	Multifamily	Total Rental	Total
Total Units					
Market	4,936,208	1,015,538	1,491,990	2,507,528	7,443,736
Fannie Mae	1,355,693	81,152	227,531	308,683	1,664,376
Freddie Mac	1,071,065	49,813	107,792	157,605	1,228,670
GSE Total	2,426,758	130,965	335,323	466,288	2,893,046
GSE % of Market	49%	13%	22%	19%	39%
Low-Mod Units					
Market	2,034,085	913,984	1,342,791	2,256,775	4,290,860
Fannie Mae	493,489	72,514	217,134	289,648	783,137
Freddie Mac	375,952	43,711	102,704	146,415	522,367
GSE Total	869,441	116,225	319,838	436,063	1,305,505
GSE % of Market	43%	13%	24%	19%	30%
Underserved Area Units*					
Market	1,230,808	461,930	716,155	1,178,085	2,408,893
Fannie Mae	328,143	38,975	95,774	134,749	462,892
Freddie Mac	257,546	23,056	52,488	75,544	333,090
GSE Total	585,688	62,031	148,262	210,293	795,981
GSE % of Market	48%	13%	21%	18%	33%
Special Affordable Units					
Market	704,384	589,012	865,354	1,454,366	2,158,750
Fannie Mae	143,081	36,661	134,990	171,651	314,732
Freddie Mac	105,850	21,875	65,920	87,795	193,645
GSE Total	248,931	58,537	200,909	259,446	508,377
GSE % of Market	35%	10%	23%	18%	24%

Source: The market data are the estimated number of newly mortgaged units during 1997. The Single-Family Owner market data exclude B&C loans; including the B&C loans in the owner market would have reduced the GSE market share from 49 percent to 42 percent. See Appendix D for an explanation of the market methodology and various caveats (such as excluding manufactured housing in non-metropolitan areas). The GSE data include units from conventional mortgages originated during 1997 and purchased by one of the GSEs during 1997 or 1998. GSE data with missing affordability or geocode fields are reallocated based the distribution of existing data.

*The Single-Family Owner market data for underserved areas should be considered a minimal estimate. The goal-qualifying percentages that were used to derive the Single-Family Owner market estimates were based on HMDA data for metropolitan areas; as discussed in Appendix D, this underestimates the underserved area market in non-metropolitan areas.

BILLING CODE 4210–27–C

While the GSEs are free to meet the Department's goals in any manner that they deem appropriate, it is useful to consider their performance relative to the industry by property type. As shown in Table A.7, the GSEs accounted for 49 percent of the single-family owner market in 1997 but only 22 percent of the multifamily market and 13 percent of the single-family rental market (or a combined share of 19 percent of the rental market).

Single Family Owner Market. This market is the bread-and-butter of the GSEs' business, and based on the financial and other factors discussed below, they clearly have the ability to lead the primary market in providing credit for low- and moderate-income owners of single-family properties. However, the GSEs have been lagging behind the market in their funding of single-family owner loans that qualify for the housing goals, as discussed in Section E.2.c. Between 1996 and 1998, low- and moderate-income borrowers accounted for 34.9 percent of Freddie Mac's mortgage purchases and 38.4 percent of Fannie Mae's mortgage purchases, but 42.6 percent of primary market originations in metropolitan areas. The market share data reported in Table A.7 for the single-family owner market tell the same story. The GSEs' purchases of single-family owner loans represented 49 percent of all newly-originated owner loans in 1997, but only 43 percent of the low-mod loans that were originated, 35 percent of the special affordable loans, and 48 percent of the underserved area loans. Thus, the GSEs need to improve their performance and it appears that there is ample room in the non-GSE portions of the goals-qualifying markets for them to do so. For instance, the GSEs are not involved in almost two-thirds of special affordable owner market.

Single Family Rental Market. Single-family rental housing is a major source of low- and moderate-income housing. As discussed in Appendix D, data on the size of the primary market for mortgages on these properties is limited, but information from the American Housing Survey on the stock of such units and plausible rates of refinancing indicate that the GSEs are much less active in this market than in the single-family owner market. As shown in Table A.7, HUD estimates that the GSEs' purchases have totaled only 13 percent of newly-mortgaged single-family rental units that were affordable to low- and moderate-income families.

Many of these properties are ''mom-and-pop'' operations, which may not follow financing procedures consistent with the GSEs' guidelines. Much of the financing needed in this area is for rehabilitation loans on 2–4 unit properties in older areas, a market in which the GSEs' have not played a major role. However, this sector could certainly benefit from an enhanced role by the GSEs, and the Department believes that there is room for such an enhanced role.

Multifamily Market. Fannie Mae is the largest single source of multifamily finance in the United States, and Freddie Mac has made a solid reentry into this market over the last five years. However, there are a number of measures by which the GSEs lag the multifamily market. For example, the share of GSE resources committed to the multifamily purchases falls short of the multifamily proportion prevailing in the overall mortgage market. HUD estimates that newly-mortgaged units in multifamily properties represented 18 percent all (single-family and multifamily) dwelling units financed during 1997.[201] By comparison, multifamily acquisitions represented 13 percent all units backing Fannie Mae's 1997 mortgage purchases, with a corresponding figure of only 8 percent for Freddie Mac.[202] [203] In other words, the GSEs place more emphasis on single-family mortgages than they do on multifamily mortgages.

The GSEs' focus on the single-family market means that they play a relatively small role in the multifamily market. As shown in Table A.7, the GSEs' purchases have accounted for only 22 percent of newly-financed multifamily units during 1997—a market share much lower than their 49 percent share of the single-family owner market. Thus, these data suggest that a further enlargement of the GSEs' role in the multifamily market seems feasible and appropriate in the future.

There are a number of submarkets, such as the market for mortgages on 5–50 unit multifamily properties, where the GSEs' role have particularly lag the market. As mentioned above, the GSEs represented 22 percent of the overall conventional multifamily mortgage market in 1997, but their acquisitions of loans on small multifamily properties represented only about 2 percent of such properties financed that year.[204] Certainly the GSEs face a number of challenges in better meeting the needs of the multifamily secondary market. For example, thrifts and other depository institutions may sometimes retain their best loans in portfolio, and the resulting information asymmetries may act as an impediment to expanded secondary market transaction volume.[205] However, the GSEs have demonstrated that they have the depth of expertise and the financial resources to devise innovative solutions to problems in the multifamily market.

2. Qualitative Dimensions of the GSEs' Ability To Lead the Industry

This section discusses several qualitative factors that are indicators of the GSEs' ability to lead the industry in affordable lending. It discusses the GSEs' role in the mortgage market; their ability, through their underwriting standards, new programs, and innovative products, to influence the types of loans made by private lenders; their development and utilization of state-of-the-art technology; the competence, expertise and training of their staffs; and their financial resources.

[201] Table A.7 shows that multifamily represented 20 percent of total units financed during 1997 (obtained by dividing 1,491,990 multifamily units by 7,443,736 ''Total Market'' units). Increasing the single-family-owner number in Table A.7 by 776,193 to account for excluded B&C mortgages increases the ''Total Market'' number to 8,219,929, which is consistent with the 18 percent multifamily share reported in the text. See Appendix D for discussion of the B&C market.

[202] A similar imbalance is evident with regard to figures on the stock of mortgage debt published by the Federal Reserve Board. Within the single-family mortgage market the GSEs held loans or guarantees with an unpaid principal balance (UPB) of $1.5 trillion, comprising 36 percent of $4.0 trillion in outstanding single-family mortgage debt as of the end of 1997. At the end of 1997, the GSEs direct holdings and guarantees of $41.4 billion represented 13.7 percent of $301 billion in multifamily mortgage debt outstanding. (*Federal Reserve Bulletin*, June 1998, A 35.)

[203] For the most part, GSE multifamily purchases are similar to those in the overall market. For example, 56 percent of units backing Fannie Mae's 1997 multifamily acquisitions met the Special Affordable Goal, with a corresponding proportion of 57 percent for Freddie Mac, compared with a market estimate of approximately 60 percent, based on HUD's analysis of POMS data.

[204] This finding is based on the assumption that units in small multifamily properties represented approximately 37 percent of multifamily units financed in 1997, per the 1991 Residential Finance Survey, as discussed above. Additionally, it is assumed that 1997 multifamily conventional origination volume was $40.7 billion, as discussed in Appendix D. An average loan amount per unit of $25,167 is assumed, using a combination of loan-level GSE data and loan-level data from securitized multifamily mortgages in prospectus disclosures.

[205] The problem of secondary market ''adverse selection'' is described in James R. Follain and Edward J. Szymanoski. ''A Framework for Evaluating Government's Evolving Role in Multifamily Mortgage Markets,'' *Cityscape: A Journal of Policy Development and Research* 1(2), (1995).

a. Role in the Mortgage Market

As discussed in Section C of this Appendix, the GSEs' single-family mortgage acquisitions have generally followed the volume of originations in the primary market for conventional mortgages. However, in 1997, single-family originations rose by nearly 10 percent, while the GSEs' acquisitions declined by 7 percent. As a result, the Office of Federal Housing Enterprise Oversight (OFHEO) estimates that the GSEs' share of conventional single-family mortgage originations declined from 42 percent in 1996 to 37 percent in 1997. The GSEs' conventional single-family mortgage share rose to an estimated 48 percent in 1998, but that is still well below the peak of 58 percent attained in 1993.[206]

The GSEs' high shares of originations during the 1990s led to a rise in their share of total conventional single-family mortgages outstanding, including both conforming mortgages and jumbo mortgages.[207] OFHEO estimates that the GSEs' share of such mortgages outstanding jumped from 34 percent at the end of 1991 to 40 percent at the end of 1994 and an estimated 45 percent at the end of 1998.[208] All of the increase in the GSEs' relative role between 1991 and 1998 was due to the growth in their portfolio holdings as a share of mortgages outstanding, from 5 percent at the end of 1991 to 17 percent at the end of 1998; relative holdings of the GSEs' mortgage-backed securities by others actually declined as a share of mortgages outstanding, from 29 percent at the end of 1991 to 28 percent at the end of 1998.

The dominant position of the GSEs in the mortgage market is reinforced by their relationships with other market institutions. Commercial banks, mutual savings banks, and savings and loans are their competitors as well as their customers—they compete to the extent they hold mortgages in portfolio, but at the same time they sell mortgages to the GSEs. They also buy mortgage-backed securities, as well as the debt securities used to finance the GSEs' portfolios. Mortgage bankers, who accounted for 58 percent of all single-family loans in 1997, sell virtually all of their conventional conforming loans to the GSEs.[209] Private mortgage insurers are closely linked to the GSEs, because mortgages purchased by the enterprises that have loan-to-value ratios in excess of 80 percent are normally required to be covered by private mortgage insurance, in accordance with the GSEs' charter acts.

b. Underwriting Standards for the Primary Mortgage Market

The GSEs' underwriting guidelines are followed by virtually all originators of prime mortgages, including lenders who do not sell many of their mortgages to Fannie Mae or Freddie Mac.[210] The guidelines are also commonly followed in underwriting ''jumbo'' mortgages, which exceed the maximum principal amount which can be purchased by the GSEs (the conforming loan limit)—such mortgages eventually might be sold to the GSEs, as the principal balance is amortized or when the conforming loan limit is otherwise increased. The GSEs, through their automated underwriting systems, have started adapting their underwriting for subprime loans and other loans that have not met their traditional underwriting standards.

Because the GSEs' guidelines set the credit standards against which the mortgage applications of lower-income families are judged, the enterprises have a profound influence on the rate at which mortgage funds flow to low- and moderate-income borrowers and underserved neighborhoods. Congress realized the crucial role played by the GSEs' underwriting guidelines when it required each enterprise to submit a study on its guidelines to the Secretary and to Congress in 1993, and when it called for the Secretary to ''periodically review and comment on the underwriting and appraisal guidelines of each enterprise.'' Some of the conclusions from a study of the GSEs' single-family underwriting guidelines prepared for the Department by the Urban Institute have been discussed in Section E.

c. State-of-the-Art Technology

Both GSEs are in the forefront of new developments in mortgage industry technology. Each enterprise released an automated underwriting system in 1995—Freddie Mac's ''Loan Prospector'' and Fannie Mae's ''Desktop Underwriter.'' Both systems rely on numerical credit scores, such as those developed by Fair, Isaac, and Company, and additional data submitted by the borrower, to obtain a mortgage score. The mortgage score indicates to the lender either that the GSE will accept the mortgage, based on the application submitted, or that more detailed manual underwriting is required to make the loan eligible for GSE purchase.

It is estimated that 25–40 percent of the GSEs' purchases are now based on automated underwriting. These systems have also been adapted for FHA and jumbo loans. They have the potential to reduce the cost of loan origination, particularly for low-risk loans, but the systems are so new that no comprehensive studies of their effects have been conducted. As discussed earlier, concerns about the use of automated underwriting include the impact on minorities and the ''black box'' nature of the score algorithm.

The GSEs are using their state-of-the-art technology in certain ways to help expand homeownership opportunities. For example, Fannie Mae has developed FannieMaps, a computerized mapping service offered to lenders, nonprofit organizations, and state and local governments to help them implement community lending programs.

d. Staff Resources

Both Fannie Mae and Freddie Mac are well-known throughout the mortgage industry for the expertise of their staffs in carrying out their current programs, conducting basic and applied research regarding mortgage markets, developing innovative new programs, and undertaking sophisticated analyses that may lead to new programs in the future. The leaders of these corporations frequently testify before Congressional committees on a wide range of housing issues, and both GSEs have developed extensive working relationships with a broad spectrum of mortgage market participants, including various nonprofit groups, academics, and government housing authorities. They also contract with outside leaders in the finance industry for technical expertise not available in-house and for advice on a wide variety of issues.

e. Financial Strength

Fannie Mae. The benefits that accrue to the GSEs because of their GSE status, as well as their solid management, have made them two of the nation's most profitable businesses. Fannie Mae's net income has increased from $376 million in 1987 to $1.6 billion in 1992, $3.1 billion in 1997, and $3.4 billion in 1998—an average annual rate of increase of 22 percent. Through the fourth quarter of 1998, Fannie Mae has recorded 48 consecutive quarters of increased net income per share of common equity. Fannie Mae's return on equity averaged 23.8 percent over the 1993–97 period—far above the rates achieved by most financial corporations.

Investors in Fannie Mae's common stock have seen their annual dividends per share nearly double over the last five years, rising from $1.84 in 1993 to $3.36 in 1997. If dividends were fully reinvested, an investment of $1000 in Fannie Mae common stock on December 31, 1987 would have appreciated to $27,983.98 by December 31, 1997. This annualized total rate of return of 39.5 percent over the decade exceeded that of many leading U. S. corporations, including Intel (35.9 percent), Coca-Cola (32.4 percent), and General Electric (24.3 percent).

Freddie Mac. Freddie Mac has shown similar trends. Freddie

Mac's net income has increased from $301 million in 1987 to $622 million in 1992, $1.4 billion in 1997, and $1.7 billion in 1998—an average annual rate of increase of 17 percent. Freddie Mac's return on equity averaged 22.7 percent over the 1993–97 period—also well above the rates achieved by most financial corporations.

Investors in Freddie Mac's common stock have also seen their annual dividends per share nearly double over the last five years, rising from $0.88 in 1993 to $1.60 in 1997.

[206] Office of Federal Housing Enterprise Oversight, *1998 Report to Congress,* Figure 9, page 32.

[207] A jumbo mortgage is one for which the loan amount exceeds the maximum principal amount for mortgages purchased by the enterprises—$240,000 for mortgages on 1-unit properties in 1999, with limits that are 50 percent higher in Alaska, Hawaii, Guam, and the Virgin Islands.

[208] Office of Federal Housing Enterprise Oversight, *1998 Report to Congress*, (June 15, 1998), Figure 9, p. 32; and unpublished OFHEO estimates for 1998.

[209] Mortgage originations for 1997 were reported in the Department of Housing and Urban Development, *HUD Survey of Mortgage Lending Activity: Fourth Quarter/Annual 1997,* (September 24, 1998).

[210] The underwriting guidelines published by the two GSEs are similar in most aspects. And since November 30, 1992, Fannie Mae and Freddie Mac have provided lenders the same *Uniform Underwriting and Transmittal Summary* (Fannie Mae Form 1008/Freddie Mac Form 1077), which is used by originators to collect certain mortgage information that they need for data entry when mortgages are sold to either GSE.

If dividends were fully reinvested, an investment of $1000 in Freddie Mac common stock on December 29, 1989 would have appreciated to $8,670.20 by December 31, 1997, for an annualized total rate of return of 31.0 percent over this period. This was slightly higher than the annual return on Fannie Mae common stock (29.9 percent) and substantially higher than the average gain in the S&P Financial-Miscellaneous index (24.1 percent) over the 1990–97 period.[211]

Other indicators. Additional indicators of the strength of the GSEs are provided by various rankings of American corporations. One survey found that at the end of 1997 Fannie Mae was first of all companies in total assets and Freddie Mac ranked 13th.[212] Business Week has reported that among Standard & Poor's 500 companies in 1997 Fannie Mae and Freddie Mac respectively ranked 25th and 61st in market value, and 28th and 57th in total profits.[213]

f. Conclusion About Leading the Industry

In light of these considerations, the Secretary has determined that the GSEs have the ability to lead the industry in making mortgage credit available for low-and moderate-income families.

H. Factor 6: The Need To Maintain the Sound Financial Condition of the GSEs

HUD has undertaken a separate, detailed economic analysis of this proposed rule, which includes consideration of (a) the financial returns that the GSEs earn on low- and moderate-income loans and (b) the financial safety and soundness implications of the housing goals. Based on this economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the proposed goals raise minimal, if any, safety and soundness concerns.

I. Determination of the Low- and Moderate-Income Housing Goals

The annual goal for each GSE's purchases of mortgages financing housing for low- and moderate-income families is established at 48 percent of eligible units financed in calendar year 2000, and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003. This goal will remain in effect for 2004 and thereafter, unless changed by the Secretary prior to that time. The goal represents an increase over the 1996 goal of 40 percent and the 1997–99 goal of 42 percent. The goals for 2001–2003 are in the lower portion of the range of market share estimates of 50–55 percent, presented in Appendix D. The Secretary's consideration of the six statutory factors that led to the choice of these goals is summarized in this section.

1. Housing Needs and Demographic Conditions

Data from the 1990 Census and the American Housing Surveys demonstrate that there are substantial housing needs among low- and moderate-income families, especially among lower-income and minority families in this group. Many of these households are burdened by high homeownership costs or rent payments and will likely continue to face serious housing problems, given the dim prospects for earnings growth in entry-level occupations. According to HUD's ''Worst Case Housing Needs'' report, 21 percent of owner households faced a moderate or severe cost burden in 1995. Affordability problems were even more common among renters, with 40 percent paying more than 30 percent of their income for rent in 1995.[214]

Single Family Mortgage Market. Many younger, minority and lower-income families did not become homeowners during the 1980s due to the slow growth of earnings, high real interest rates, and continued house price increases. Over the past six years, economic expansion, accompanied by low interest rates and increased outreach on the part of the mortgage industry, has improved affordability conditions for these families. Between 1993 and 1998, record numbers of lower-income and minority families purchased homes. First-time homeowners have become a major driving force in the home purchase market over the past five years. Thus, the 1990s have seen the development of a strong affordable lending market. Despite this growth in affordable lending to minorities, disparities in the mortgage market remain. For example, African-American applicants are still twice as likely to be denied a loan as white applicants, even after controlling for income.

Several demographic changes will affect the housing finance system over the next few years. First, the U.S. population is expected to grow by an average of 2.4 million per year over the next 20 years, resulting in 1.1 to 1.2 million new households per year. The aging of the baby-boom generation and the entry of the baby-bust generation into prime home buying age will have a dampening effect on housing demand. However, the continued influx of immigrants will increase the demand for rental housing, while those who immigrated during the 1980's will be in the market for owner-occupied housing. Non-traditional households have become more important, as overall household formation rates have slowed. With later marriages, divorce, and non-traditional living arrangements, the fastest growing household groups have been single-parent and single-person households. With continued house price appreciation and favorable mortgage terms, ''trade-up buyers'' will increase their role in the housing market. These demographic trends will lead to greater diversity in the homebuying market, which will require adaptation by the primary and secondary mortgage markets.

As a result of the above demographic forces, housing starts are expected to average 1.5 million units between 2000 and 2003, essentially the same as in 1996–99.[215] Refinancing of existing mortgages, which accounted for 50 percent of originations in 1998, will continue to play a major role in 1999, returning to more normal levels during 2000. Thus the mortgage market should remain strong in 1999, while easing somewhat during 2000.

Multifamily Mortgage Market. Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, although not to the same degree as the single-family mortgage market. Loans on multifamily properties remain viewed as riskier than their single-family counterparts. Property values, vacancy rates, and market rents in multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced for single-family mortgages.

Recent volatility in the market for Commercial Mortgage Backed Securities (CMBS), an important source of financing for multifamily properties, underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by virtue of the fact that an increasing proportion of multifamily mortgages is now originated in accordance with secondary market standards.

The GSEs have the capability to increase the availability of long-term, fixed rate financing, thereby contributing greater liquidity in market segments where increased GSE presence can provide lenders with a more viable ''exit strategy'' than what is presently available. It appears that the cost of mortgage financing on properties with 5–50 units, where much of the nation's affordable housing stock is concentrated, may be higher than warranted by the degree of inherent credit risk.[216] Presently, however, the GSEs purchase only about 5 percent of units in 5–50 unit properties financed annually. Borrowers have also experienced difficulty obtaining mortgage financing for multifamily properties with significant rehabilitation needs. Historically the flow of capital into multifamily housing for seniors has, moreover, been characterized by a great deal of volatility.

2. Past Performance and Ability To Lead the Industry

The GSEs have played a major role in the conventional single-family mortgage market in the 1990s. The GSEs' purchases of single-family-owner mortgages have accounted for 49 percent of mortgages originated in the conventional conforming market during 1997. Many industry observers believe that the role of the GSEs in the late-1980s and 1990s is a major reason why the decline of the thrift industry had only minor effects on the nation's housing finance system.

[211] Freddie Mac stock was not publicly traded until after the passage of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), thus it is not possible to calculate a 10–year annualized rate of return.

[212] *Forbes,* (April 20, 1998), p. 315.

[213] *Business Week,* (March 30, 1998), p. 154.

[214] *Rental Housing Assistance—The Crisis Continues: The 1997 Report to Congress on Worst Case Housing Needs,* Department of Housing and Urban Development, Office of Policy Development and Research, (April 1998).

[215] Standard & Poor's DRI, *The U.S. Economy.* (September 1999), p. 54.

[216] See Drew Schneider and James Follain, ''A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing,'' *Cityscape: A Journal of Policy Development and Research* 4(1), (1998), pp. 43–58.

Additionally, the American mortgage market was not impacted adversely in any way by the recent volatility in world financial markets.

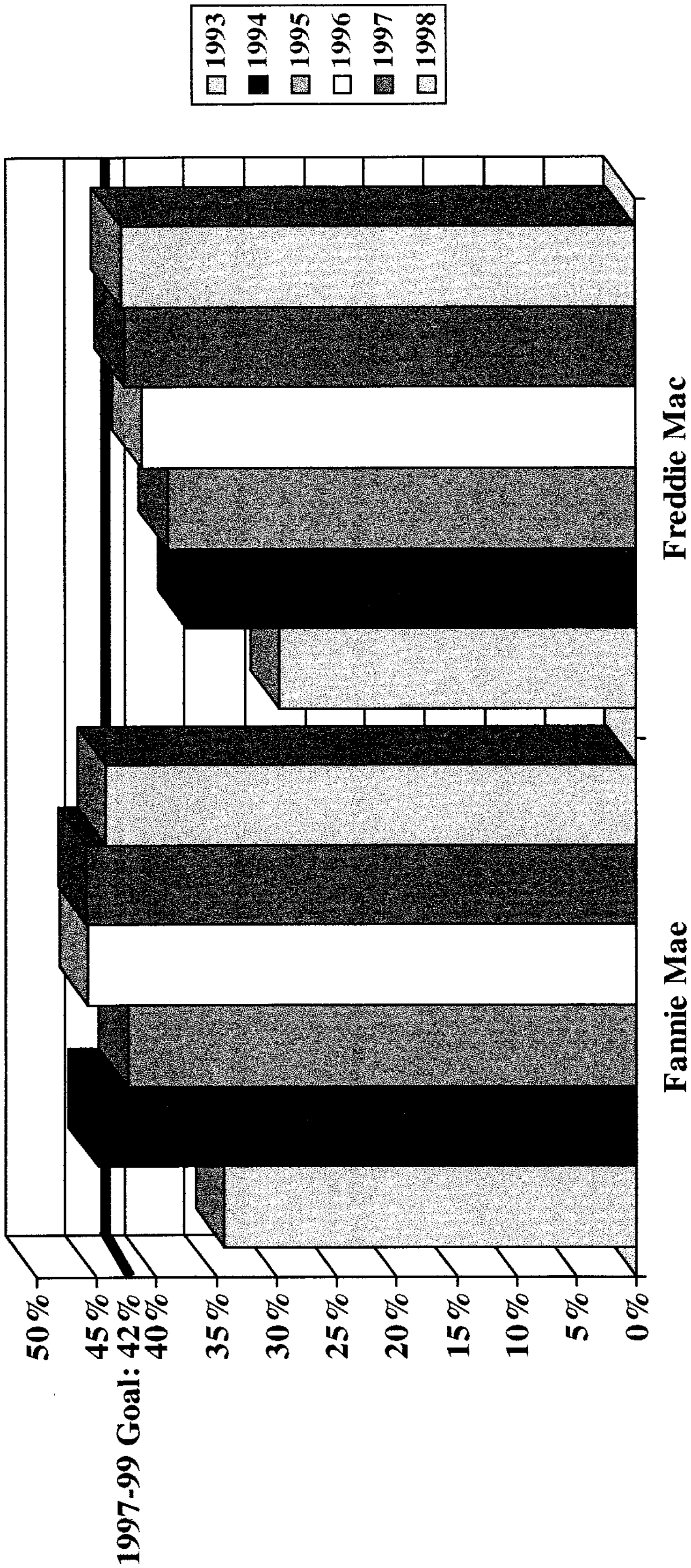
The enterprises' role in the mortgage market is also reflected in their use of cutting edge technology, such as the development of Loan Prospector and Desktop Underwriter, the automated underwriting systems developed by Freddie Mac and Fannie Mae, respectively. Both GSEs are also entering new and challenging fields of mortgage finance, including activities involving subprime mortgages and mortgages on manufactured housing.

The GSEs' performance on the Low- and Moderate-Income Housing Goal has also improved significantly in recent years, as shown in Figure A.1. Fannie Mae's performance increased from 34.2 percent in 1993 to 42.3 percent in 1995, 45.6 percent in 1996, and 45.7 percent in 1997, then falling slightly to 44.1 percent in 1998. Freddie Mac's performance also increased, from 29.7 percent in 1993 to 38.9 percent in 1995, 41.1 percent in 1996, 42.6 percent in 1997, and 42.9 percent in 1998. Although Freddie Mac's low- and moderate-income shares were below Fannie Mae's shares in every year, its goal performance was 97 percent of Fannie Mae's performance in 1998, the highest performance ratio for Freddie Mac since goals were instituted in 1993. This increase in Freddie Mac's relative performance on the Low- and Moderate-Income Housing Goal resulted primarily from its increased role in the multifamily mortgage market.

BILLING CODE 4210–P

Figure A.1

Low- and Moderate-Income Mortgage Purchases

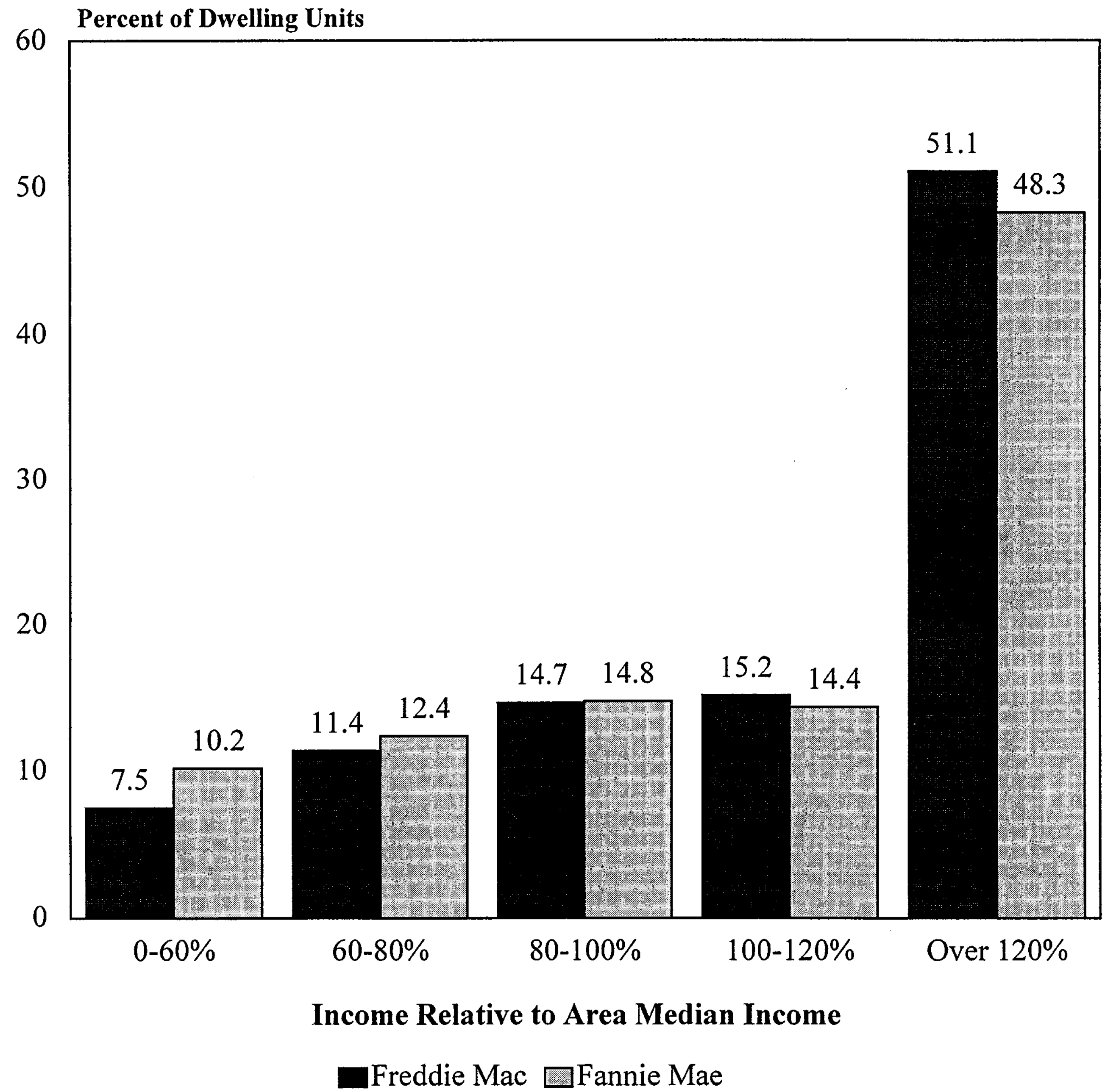


Low- and Moderate-Income Goal is 42% of units financed for 1997-99 (40% for 1996).

Source: HUD analysis of GSEs' loan-level data.

Figure A.2

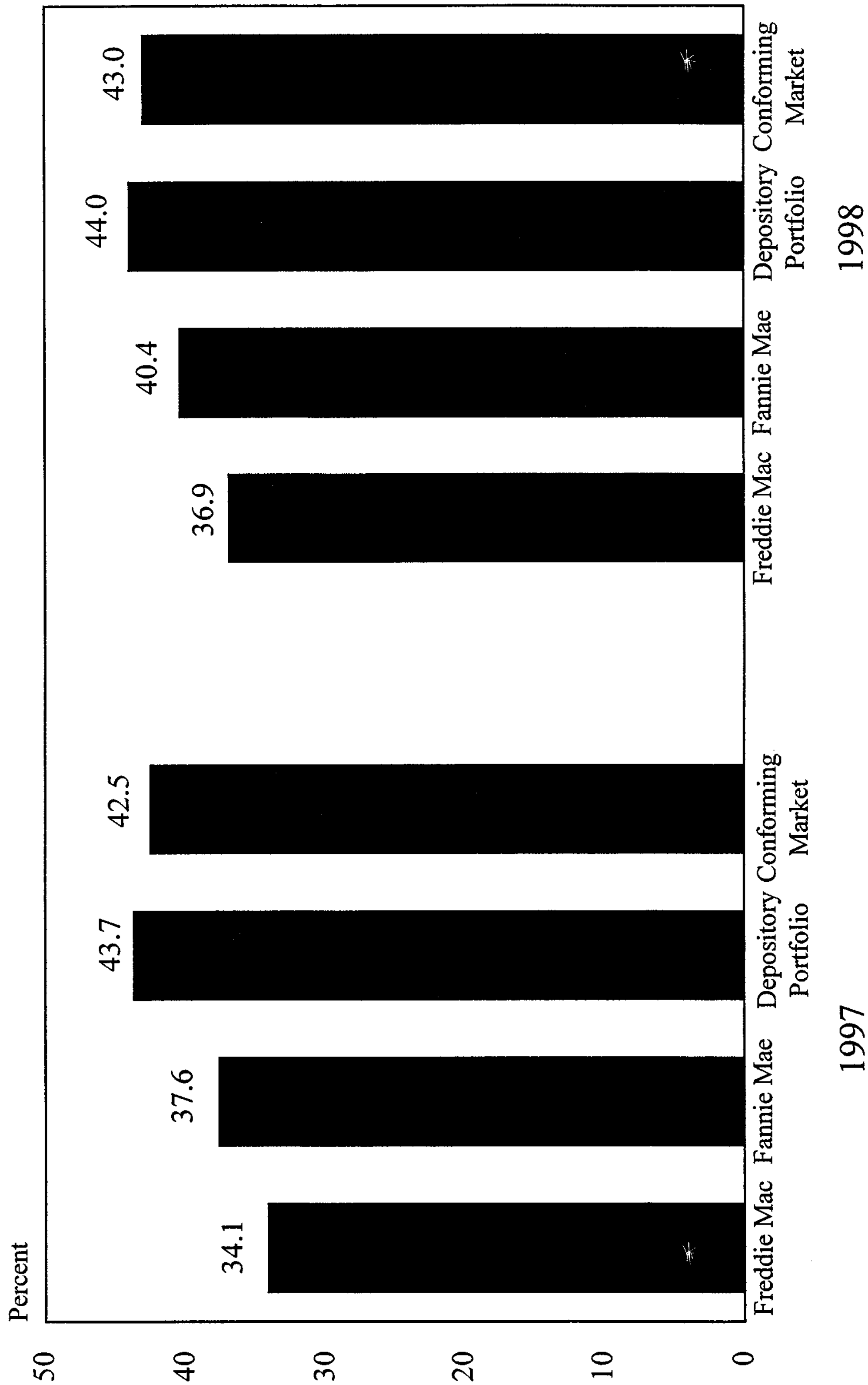
Distribution of GSE Purchases of Single-Family Owner-Occupied Home Loans by Income Class of Mortgagor for 1997



Source: GSE loan-level data on purchases of home loans in both metropolitan and non-metropolitan areas.

Figure A.3

The Share Of GSE And Conventional Conforming Mortgages for Low- and Moderate-Income Borrowers, 1997 and 1998



Source: Conforming market and depository data are from 1997 and 1998 HMDA; GSE data are from loan-level data reported to HUD. Data are for single-family home purchase loans in metropolitan areas. See Table A.4a for further explanation.

BILLING CODE 4210–27–C

Single Family Affordable Lending Market. Despite these gains in goal performance, the Department remains concerned about the GSEs' support of lending for the lower-income end of the market. As shown in Figures A.2 and A.3, the lower-income shares of the GSEs' purchases are too low, particularly when compared with the corresponding shares for portfolio lenders and the primary market.

This appendix has reached the following findings with respect to the GSEs' purchases of affordable loans for low- and moderate-income families and their communities.

(i) While Fannie Mae and Freddie Mac have both improved their support for the single-family affordable lending market over the past six years, they have generally lagged the overall single-family market in providing affordable loans to lower-income borrowers. This finding is based on HUD's analysis of GSE and HMDA data and on numerous studies by academics and research organizations.

(ii) The GSEs show somewhat different patterns of mortgage purchases—for example, Freddie Mac is less likely than Fannie Mae to fund mortgages for lower-income families. As a result, the percentage of Freddie Mac's purchases benefiting historically underserved families and their neighborhoods is less than the corresponding shares of total market originations, while Fannie Mae's purchases are closer to the patterns of originations in the primary market (see Figure A.3).

(iii) A study by The Urban Institute of lender experience with the GSEs' underwriting guidelines finds that the enterprises have stepped up their outreach efforts and increased the flexibility in their standards to better accommodate the special circumstances of lower-income borrowers. However, this study concludes that the GSEs' guidelines remain somewhat inflexible and that the enterprises are often hesitant to purchase affordable loans. Lenders also tell The Urban Institute that Fannie Mae has been more aggressive than Freddie Mac in market outreach to underserved groups, in offering new affordable products, and in adjusting its underwriting standards.

(iv) A large percentage of the lower-income loans purchased by the enterprises have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of lower-income families have difficulty raising enough cash for a large down payment.

(v) There are important parts of the single-family market where the GSEs have played a minimal role. For example, single-family rental properties are an important source of low-income housing, but they represent only a small portion of the GSEs' business. GSE purchases have accounted for only 13 percent of the single-family rental units that received financing in 1997. An increased presence by Fannie Mae and Freddie Mac would bring lower interest rates and liquidity to this market, as well as improve their goals performance.

(vi) The above points can be summarized by examining the GSEs' share of the single-family mortgage market. The GSEs' total purchases have accounted for 43 percent of all single-family (both owner and rental) units financed during 1997; however, their low-mod purchases have accounted for only one-third of the low- and moderate-income single-family units that were financed during that year.

In conclusion, the Department's analysis suggests that the GSEs are not leading the single-family market in purchasing loans that qualify for the Low- and Moderate-Income Goal. There is room for Fannie Mae and, particularly, Freddie Mac to improve their performance in purchasing affordable loans at the lower-income end of the market. Moreover, evidence suggests that there is a significant population of potential homebuyers who might respond well to aggressive outreach by the GSEs. Specifically, both Fannie Mae and the Joint Center for Housing Studies expect immigration to be a major source of future homebuyers. Furthermore, studies indicate the existence of a large untapped pool of potential homeowners among the rental population. Indeed, the GSEs' recent experience with new outreach and affordable housing initiatives is important confirmation of this potential.

Multifamily Market. Fannie Mae and, especially, Freddie Mac have rapidly expanded their presence in the multifamily mortgage market in the period since the passage of FHEFSSA. The Senate report on this legislation in 1992 referred to the GSEs' activities in the multifamily arena as ''troubling,'' citing Freddie Mac's September 1990 suspension of its purchases of new multifamily mortgages and criticism of Fannie Mae for ''creaming'' the market.[217]

Freddie Mac has successfully rebuilt its multifamily acquisition program, as shown by the increase in its purchases of multifamily mortgages from $27 million in 1992 to $847 million in 1994 and $6.6 billion in 1998. As a result, concerns regarding Freddie Mac's multifamily capabilities no longer constrain their performance with regard to low- and moderate-income families in the manner that prevailed at the time of the December 1995 rule.

Fannie Mae never withdrew from the multifamily market, but it has also stepped up its activities in this area substantially, with multifamily purchases rising from $3.0 billion in 1992 to $3.8 billion in 1994 and $12.5 billion in 1998. Fannie Mae publicly announced in 1994 an aggressive goal of conducting $50 billion in multifamily transactions between 1994 and the end of the decade, and it appears likely that it will be successful in reaching this goal.[218] Also, Fannie Mae's multifamily underwriting standards are highly influential and have been widely emulated throughout the multifamily mortgage market.

The increased role of Fannie Mae and Freddie Mac in the multifamily market has major implications for the Low- and Moderate-Income Housing Goal, since a very high percentage of multifamily units have rents which are affordable to low- and moderate-income families. However, the potential of the GSEs to lead the multifamily mortgage industry has not been fully developed. As reported earlier in Table A.7, the GSEs' purchases (through 1998) have accounted for only 22 percent of the multifamily units that received financing during 1997. Standard & Poor's recently described both GSEs' multifamily lending as ''extremely conservative.''[219] In particular, their multifamily purchases do not appear to be contributing to mitigation of the excessive cost of mortgage financing for small multifamily properties, nor have the GSEs demonstrated market leadership with regard to rehabilitation loans, a segment where financing has sometimes been difficult to obtain. In conclusion, it appears that both GSEs can make improvements in their underwriting policies and procedures and introduce new products that will enable them to more effectively serve segments of the multifamily market that can benefit from greater liquidity.

3. Size of the Mortgage Market for Low- and Moderate-Income Families

As detailed in Appendix D, the low-and moderate-income mortgage market accounts for 50 to 55 percent of dwelling units financed by conventional conforming mortgages. In estimating the size of the market, HUD excluded the effects of the B&C market. HUD also used alternative assumptions about future economic and market conditions that were less favorable than those that existed over the last five years. HUD is well aware of the volatility of mortgage markets and the possible impacts of changes in economic conditions on the GSEs' ability to meet the housing goals. Should conditions change such that the goals are no longer reasonable or feasible, the Department has the authority to revise the goals.

4. The Low- and Moderate-Income Housing Goals for 2000–03

There are several reasons why the Secretary is increasing the Low- and Moderate-Income Housing Goal from 42 percent in 1997–99 to 48 percent of eligible units financed in calendar year 2000 and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003.

First, when the 1996–99 goals were established in December 1995, Freddie Mac had only recently reentered the multifamily mortgage market, after its absence in the early 1990s. Freddie Mac has rebuilt its multifamily acquisition program over the past several years, with its 1998 purchases at a level nearly five times what they were in 1994. The limited role of Freddie Mac in the multifamily market was a significant constraint in setting the Low- and Moderate-Income Housing Goals for 1996–99. Freddie Mac's return as a major participant in the multifamily market was an important factor in the improvement in its performance on the Low- and Moderate-Income Housing Goal, as shown in Figure A.1, and it removes an impediment to higher goals for both GSEs. These goals will create new opportunities for the GSEs to further step up their support of mortgages on properties with rents affordable

[217] Senate Report 102–282, (May 15, 1992), p. 36.

[218] See Fannie Mae's World Wide Web site at http://www.fanniemae.com.

[219] ''Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight (OFHEO),'' (February 3, 1997), p. 10.

to low- and moderate-income families. However, as discussed in the Preamble, to encourage Freddie Mac to further step up its role in the multifamily market, the Secretary is proposing a ''temporary adjustment factor'' for its purchases of loans on properties with more than 50 units. Specifically, each unit in such properties would be weighted as 1.2 units in the numerator of the housing goal percentage for both the Low and Moderate Income Goal and the Special Affordable Housing Goal for the years 2000–2003.

Second, the single-family affordable market had only recently begun to grow in 1993 and 1994, the latest period for which data was available when the 1996–99 goals were established in December 1995. But the historically high low- and moderate-income share of the primary mortgage market attained in 1994 has been maintained over the 1995–98 period. The three-year average estimate of the low- and moderate-income share of the single-family owner mortgage market was 38 percent for 1992–94, but 42 percent for 1995–98 and 41 percent for the 1992–98 period as a whole. The continued high affordability of housing suggests that a strong low-income market continued for a sixth straight year in 1999. Current economic forecasts suggest that the strong housing affordability of the past several years will be maintained in the post-1999 period, leading to additional opportunities for the GSEs to support mortgage lending benefiting low- and moderate-income families.[220] And various surveys indicate that the demand for homeownership by minorities, immigrants, and younger households will remain strong for the foreseeable future.

Although single-family owner 1-unit properties comprise the ''bread-and-butter'' of the GSEs' business, evidence presented above demonstrates that the shares of their loans for low- and moderate-income families taking out loans on such properties lag the corresponding shares for the primary market. For example, in 1997 the Department finds that these shares amounted to 34.1 percent for Freddie Mac, 37.6 percent for Fannie Mae, and 42.5 percent for the primary market; as shown in Figure A.3, a similar pattern holds for 1998. Thus the Secretary believes that the GSEs can do more to raise the low- and moderate-income shares of their mortgages on these properties. This can be accomplished by building on various programs that the enterprises have already started, including (1) their outreach efforts, (2) their incorporation of greater flexibility into their underwriting guidelines, (3) their purchases of seasoned CRA loans, (4) their entry into new single-family mortgage markets such as loans on manufactured housing, (5) their increased purchases of loans on small multifamily properties, and (6) their increased presence in other rental markets where they have had only a limited presence in the past.

Third, one particular area where the GSEs could play a greater role is in the mortgage market for single-family rental dwellings. These properties, containing 1–4 rental units, are an important source of housing for low- and moderate-income families, but the GSEs have not played a major role in this mortgage market—they accounted for only 6.5 percent of units financed by Fannie Mae and 6.4 percent of units financed by Freddie Mac in 1997. The Department believes that the GSEs' role in financing loans on such properties, which are generally owned by ''mom and pop'' businesses, can and should be enhanced, though it recognizes that single-family rental properties are very heterogeneous, making it more difficult to develop standardized underwriting standards for the secondary market. But the Secretary believes that the GSEs can do more to play a leadership role in providing financing for such properties.[221]

Finally, a wide variety of quantitative and qualitative indicators indicate that the GSEs' have the financial strength to improve their affordable lending performance. For example, combined net income has risen steadily over the last decade, from $888 million in 1988 to $5.12 billion in 1998, an average annual growth rate of 19 percent per year. This financial strength provides the GSEs with the resources to lead the industry in supporting mortgage lending for units affordable to low- and moderate-income families.

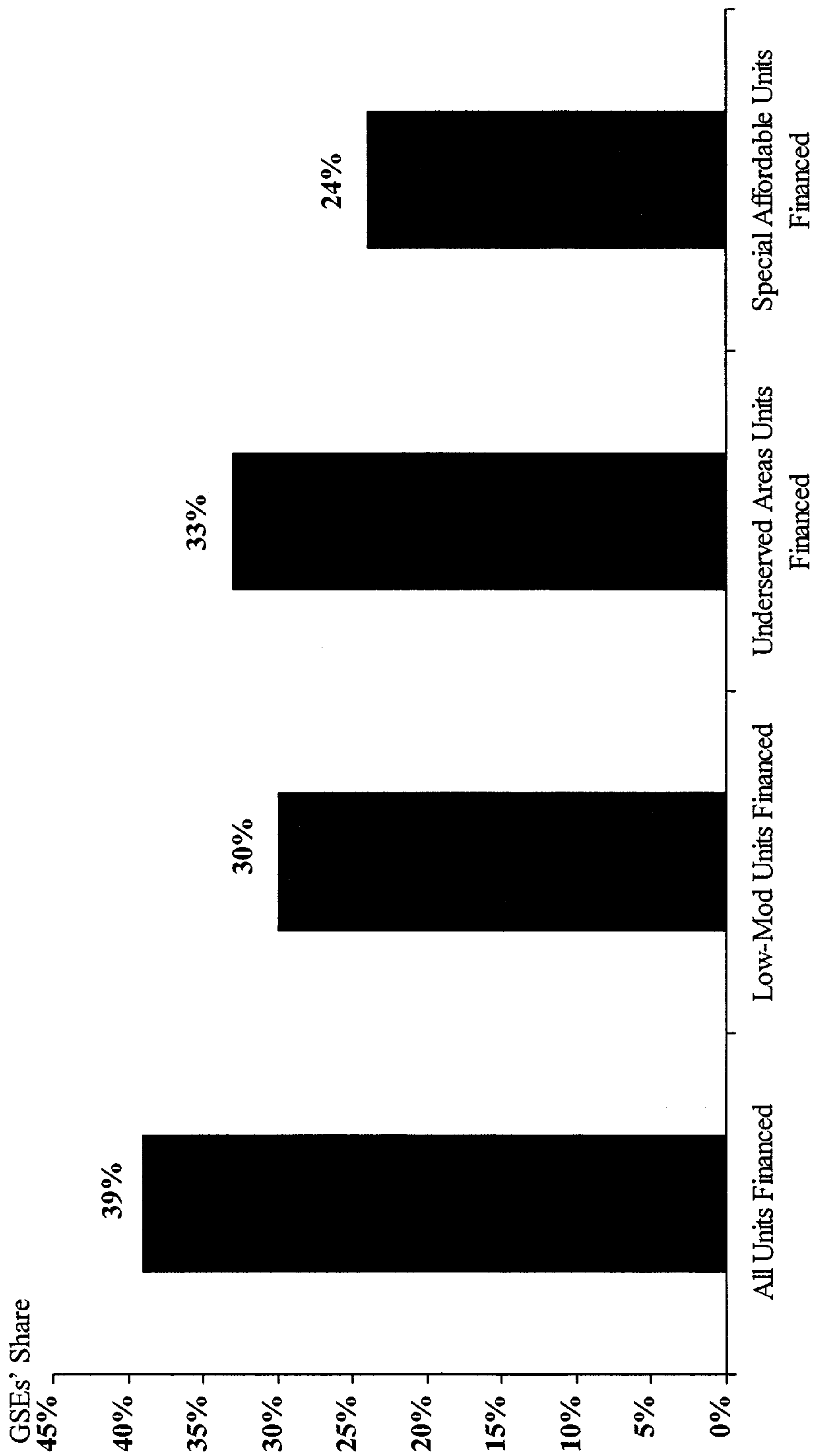
Summary. Figure A.4 summarizes many of the points made in this section regarding opportunities for Fannie Mae and Freddie Mac to improve their overall performance on the Low- and Moderate-Income Goal. The GSEs' purchases have provided financing for 2,893,046 (or 39 percent) of the 7,443,736 single-family and multifamily units that were financed in the conventional conforming market during 1997. However, in the low- and moderate-income part of the market, the 1,305,505 units that were financed by GSE purchases represented only 30 percent of the 4,290,860 dwelling units that were financed in the market. Thus, there appears to ample room for the GSEs to increase their purchases of loans that qualify for the Low- and Moderate-Income Goal. Examples of specific market segments that would particularly benefit from a more active secondary market have been provided throughout this appendix.

BILLING CODE 4210–27–P

[220] However, the Department's goals for the GSEs have been set so that they will be feasible even under less favorable conditions in the housing market.

[221] Another area where stepped-up GSE involvement could benefit low- and moderate-income families is lending for the rehabilitation of properties, which is especially needed in our urban areas. The GSEs have made some efforts in this complex area, but the benefits of stepped-up roles by the GSE could be sizable.

Figure A.4
GSEs' Share of the 1997 Conventional Conforming Market by Housing Goal Category



Note: The conventional conforming market, as estimated by HUD, includes single-family owner, single-family rental, and multifamily units financed during 1997. See notes for Table A.7.

BILLING CODE 4210–27–C

5. Conclusions

Having considered the projected mortgage market serving low- and moderate-income families, economic, housing and demographic conditions for 2000–03, and the GSEs' recent performance in purchasing mortgages for low- and moderate-income families, the Secretary has determined that the annual goal of 48 percent of eligible units financed in calendar year 2000 and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003 is feasible. Moreover, the Secretary has considered the GSEs' ability to lead the industry as well as the GSEs' financial condition. The Secretary has determined that the goal is necessary and appropriate.

Appendix B.—Departmental Considerations To Establish the Central Cities, Rural Areas, and Other Underserved Areas Goal

A. Introduction

1. Establishment of Goal

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA) requires the Secretary to establish an annual goal for the purchase of mortgages on housing located in central cities, rural areas, and other underserved areas (the ''Geographically Targeted Goal'').

In establishing this annual housing goal, Section 1334 of FHEFSSA requires the Secretary to consider:

1. Urban and rural housing needs and the housing needs of underserved areas;

2. Economic, housing, and demographic conditions;

3. The performance and effort of the enterprises toward achieving the Geographically Targeted Goal in previous years;

4. The size of the conventional mortgage market for central cities, rural areas, and other underserved areas relative to the size of the overall conventional mortgage market;

5. The ability of the enterprises to lead the industry in making mortgage credit available throughout the United States, including central cities, rural areas, and other underserved areas; and

6. The need to maintain the sound financial condition of the enterprises.

Organization of Appendix. The remainder of Section A defines the Geographically Targeted Goal for both metropolitan areas and nonmetropolitan areas. Sections B and C address the first two factors listed above, focusing on findings from the literature on access to mortgage credit in metropolitan areas (Section B) and in nonmetropolitan areas (Section C). Separate discussions are provided for metropolitan and nonmetropolitan (rural) areas because of differences in the underlying markets and the data available to measure them. Section D discusses the past performance of the GSEs on the Geographically Targeted Goal (the third factor) and Sections E–G report the Secretary's findings for the remaining factors. Section H summarizes the Secretary's rationale for setting the level for the Geographically Targeted Goal.

2. HUD's Geographically Targeted Goal

HUD's proposed definition of the geographic areas targeted by this goal is basically the same as that used during 1996–99. It is divided into a metropolitan component and a nonmetropolitan component.

Metropolitan Areas. This proposed rule provides that within metropolitan areas, mortgage purchases will count toward the goal when those mortgages finance properties that are located in census tracts where (1) median income of families in the tract does not exceed 90 percent of area (MSA) median income or (2) minorities comprise 30 percent or more of the residents and median income of families in the tract does not exceed 120 percent of area median income.

The definition includes 20,326 of the 43,232 census tracts (47 percent) in metropolitan areas, which include 44 percent of the metropolitan population.[1] The tracts included in this definition suffer from poor mortgage access and distressed socioeconomic conditions. The average mortgage denial rate in these tracts is 23.4 percent, almost twice the denial rate in excluded tracts. The tracts include 73 percent of the number of poor persons in metropolitan areas.

This definition is based on studies of mortgage lending and mortgage credit flows conducted by academic researchers, community groups, the GSEs, HUD and other government agencies. While more research must be done before mortgage access for different types of people and neighborhoods is fully understood, one finding from the existing research literature stands out—high-minority and low-income neighborhoods continue to have higher mortgage denial rates and lower mortgage origination rates than other neighborhoods. A neighborhood's minority composition and its level of income are highly correlated with measuring access to mortgage credit.

Nonmetropolitan Areas. This proposed rule provides that in nonmetropolitan areas mortgage purchases that finance properties that are located in counties will count toward the Geographically Targeted Goal where (1) median income of families in the county does not exceed 95 percent of the greater of (a) state nonmetropolitan median income and (b) nationwide nonmetropolitan median income or (2) minorities comprise 30 percent or more of the residents and median income of families in the county does not exceed 120 percent of state nonmetropolitan median income.

Two important factors influenced HUD's definition of nonmetropolitan underserved areas—lack of available data for measuring mortgage availability in rural areas and lenders' difficulty in operating mortgage programs at the census tract level in rural areas. Because of these factors, this proposed rule uses a more inclusive, county-based definition of underservedness in rural areas. HUD's definition includes 1,511 of the 2,305 counties (66 percent) in nonmetropolitan areas and accounts for 54 percent of the nonmetropolitan population and 67 percent of the nonmetropolitan poverty population.

Goal Levels. The proposed Geographically Targeted Goal is 29 percent of eligible units financed in calendar year 2000 and 31 percent of eligible units financed in calendar year 2001 and thereafter. HUD estimates that the mortgage market in areas included in the Geographically Targeted Goal accounts for 29–32 percent of the total number of newly-mortgaged dwelling units. HUD's analysis indicates that 28.8 percent of Fannie Mae's 1997 purchases and 27.0 percent of 1998 purchases financed dwelling units located in these areas. The corresponding performance for Freddie Mac was 26.3 percent in 1997 and 26.1 percent in 1998.

B. Consideration of Factors 1 and 2 in Metropolitan Areas: The Housing Needs of Underserved Urban Areas and Housing, Economic, and Demographic Conditions in Underserved Urban Areas

This section discusses differential access to mortgage funding in urban areas and summarizes available evidence on identifying those neighborhoods that have historically experienced problems gaining access to mortgage funding. Section B.1 provides an overview of the problem of unequal access to mortgage funding in the nation's housing finance system, focusing on discrimination and other housing problems faced by minority families and the communities where they live. Section B.2 examines mortgage access at the neighborhood level and discusses in some detail the rationale for the Geographically Targeted Goal in metropolitan areas. The most thorough studies available provide strong evidence that in metropolitan areas low income and minority composition identify neighborhoods that are underserved by the mortgage market.

Three main points are made in this section:

There is evidence of racial disparities in both the housing and mortgage markets. Partly as a result of this, the homeownership rate for minorities is substantially below that for whites.

The existence of substantial neighborhood disparities in mortgage credit is well documented for metropolitan areas. Research has demonstrated that census tracts with lower incomes and higher shares of minority population consistently have poorer access to mortgage credit, with higher mortgage denial rates and lower origination rates for mortgages. Thus, the income and minority composition of an area is a good measure of whether that area is being underserved by the mortgage market.

• Research supports a targeted definition. Studies conclude that characteristics of the applicant and the neighborhood where the property is located are the major determinants of mortgage denials and

[1] Tracts are excluded from the analysis if median income is suppressed or there are no owner-occupied 1–4 unit properties. There are 2,033 such tracts. When reporting denial, origination, and application rates, tracts are excluded from the analysis if there are no purchase or refinance applications. Tracts are also excluded from the analysis if: (1) Group quarters constitute more than 50 percent of housing units or (2) there are less than 15 home purchase applications in the tract and the tract denial rates equal 0 or 100 percent. Excluded tracts account for a small percentage of mortgage applications (1.4 percent). These tracts are not excluded from HUD's underserved areas if they meet the income and minority thresholds. Rather, the tracts are excluded to remove the effects of outliers from the analysis.

origination rates. Once these characteristics are accounted for, other influences, such as location in an OMB-designated central city, play only a minor role in explaining disparities in mortgage lending.[2]

1. Discrimination in the Mortgage and Housing Markets—An Overview

The nation's housing and mortgage finance markets are highly efficient systems where most homebuyers can put down relatively small amounts of cash and obtain long-term funding at relatively small spreads above the lender's borrowing costs. Unfortunately, this highly efficient financing system does not work everywhere or for everyone. Studies have shown that access to credit often depends on improper evaluation of characteristics of the mortgage applicant and the neighborhood in which the applicant wishes to buy. In addition, though racial discrimination has become less blatant in the home purchase market, studies have shown that it is still widespread in more subtle forms. Partly as a result of these factors, the homeownership rate for minorities is substantially below that of whites.

Appendix A provided an overview of the homeownership gaps and lending disparities faced by minorities. A quick look at mortgage denial rates reported by the 1997 HMDA data reveals that minority denial rates were higher than those for white loan applicants. For lower-income borrowers, the conventional denial rate for African Americans was 1.7 times the denial rate for white borrowers, while for higher-income borrowers, the denial rate for African Americans was 2.5 times the rate for white borrowers. Similarly, the FHA denial rate for lower-income African Americans was 1.8 times the denial rates for lower-income white borrowers and twice as high for higher-income African Americans as for whites with similar incomes.

Several analytical studies, some of which are reviewed later in this section, show that these differentials in denial rates are not fully accounted for by differences in credit risk. Perhaps the most publicized example is a study by the Federal Reserve Bank of Boston, described in more detail below, which found that differential denial rates were most prevalent among marginal applicants.[3] Highly qualified borrowers of all races seemed to be treated equally, but in cases where there was some flaw in the application, white applicants seemed to be given the benefit of the doubt more frequently than minority applicants.

In addition to discrimination in the lending market, substantial evidence exists of discrimination in the housing market. The 1991 Housing Discrimination Study sponsored by HUD found that minority home buyers encounter some form of discrimination about half the time when they visit a rental or sales agent to ask about advertised housing.[4] The incidence of discrimination was higher for African Americans than for Hispanics and for homebuyers than for renters. For renters, the incidence of discrimination was 46 percent for Hispanics and 53 percent for African Americans. The incidence among buyers was 56 percent for Hispanics and 59 percent for African Americans.

While discrimination is rarely overt, minorities are more often told the unit of interest is unavailable, shown fewer properties, offered less attractive terms, offered less financing assistance, or provided less information than similarly situated non-minority homeseekers. Some evidence indicates that properties in minority and racially-diverse neighborhoods are marketed differently from those in White neighborhoods. Houses for sale in non-White neighborhoods are rarely advertised in metropolitan newspapers, open houses are rarely held, and listing real estate agents are less often associated with a multiple listing service.[5]

Discrimination, while not the only cause, contributes to the pervasive level of segregation that persists between African Americans and Whites in our urban areas. Because minorities tend to live in segregated neighborhoods, their difficulty in obtaining mortgage credit has a concentrated effect on the viability of their neighborhoods. In addition, there is evidence that denial rates are higher in minority neighborhoods regardless of the race of the applicant. The next section explores the issue of credit availability in neighborhoods in more detail.

2. Evidence About Access to Credit in Urban Neighborhoods

The viability of neighborhoods—whether urban, rural, or suburban—depends on the access of their residents to mortgage capital to purchase and improve their homes. While neighborhood problems are caused by a wide range of factors, including substantial inequalities in the distribution of the nation's income and wealth, there is increasing agreement that imperfections in the nation's housing and mortgage markets are hastening the decline of distressed neighborhoods. Disparate denial of credit based on geographic criteria can lead to disinvestment and neighborhood decline. Discrimination and other factors, such as inflexible and restrictive underwriting guidelines, limit access to mortgage credit and leave potential borrowers in certain areas underserved.

Data on mortgage credit flows are far from perfect, and issues regarding the identification of areas with inadequate access to credit are both complex and controversial. For this reason, it is essential to define ''underserved areas'' as accurately as possible from existing data. To provide the reasoning behind the Department's definition of underserved areas, this section first uses 1997 HMDA data to examine geographic variation in mortgage denial rates, and then it reviews three sets of studies that support HUD's definition. These include (1) studies examining racial discrimination against individual mortgage applicants, (2) studies that test whether mortgage redlining exists at the neighborhood level, and (3) studies that support HUD's targeted approach to measuring areas that are underserved by the mortgage market. In combination, these studies provide strong support for the definition of underseved areas chosen by HUD. The review of the economics literature draws heavily from Appendix B of the 1995 GSE Rule; readers are referred there for a more detailed treatment of issues discussed below.

a. HMDA Data on Mortgage Originations and Denial Rates

Home Mortgage Disclosure Act (HMDA) data provide information on the disposition of mortgage loan applications (originated, approved but not accepted by the borrower, denied, withdrawn, or not completed) in metropolitan areas. HMDA data include the census tract location of the property being financed and the race and income of the individual loan applicant. Therefore, it is a rich data base for analyzing mortgage activity in urban neighborhoods. HUD's analysis using HMDA data for 1997 shows that high-minority and low-income census tracts have both relatively high loan application denial rates and relatively low loan origination rates.

Table B.1 presents mortgage denial and origination rates by the minority composition and median income of census tracts for metropolitan areas. Two patterns are clear: Census tracts with higher percentages of minority residents have higher mortgage denial rates and lower mortgage origination rates than all-white or substantially-white tracts. For example, the denial rate for census tracts that are over 90 percent minority (28.8 percent) was more than twice that for census tracts with less than 10 percent minority (12.4 percent).

- Census tracts with lower incomes have higher denial rates and lower origination rates than higher income tracts. For example, mortgage denial rates declined from 26.8 to 8.4 percent as tract income increased from less than 60 percent of area median to over 150 percent of area median.[6] Similar patterns arose in HUD's analysis of 1993 and 1994 HMDA data (see Appendix B of the 1995 GSE Rule).

BILLING CODE 4210–27–P

[2] For the sake of brevity, in the remainder of this appendix, the term ''central city'' is used to mean ''OMB-designated central city.''

[3] Alicia H. Munnell, Lynn Browne, James McEneaney, and Geoffrey Tootell. 1996. ''Mortgage Lending in Boston: Interpreting HMDA Data,'' American Economic Review, 86(1) March:25–54.

[4] Margery A. Turner, Raymond J. Struyk, and John Yinger. Housing Discrimination Study: Synthesis, Washington, D.C., U.S. Department of Housing and Urban Development: 1991.

[5] Margery A. Turner, ''Discrimination in Urban Housing Markets: Lessons from Fair Housing Audits,'' Housing Policy Debate, Vol. 3, Issue 2, 1992, pp. 185–215.

[6] The denial rates in Table B.1 are for home purchase mortgages. Denial rates are several percentage points lower for refinance loans than for purchase loans, but denial rates follow the same pattern for both types of loans: rising with minority concentration and falling with increasing income.

Table B.1

Origination and Denial Rates for Conventional Mortgages

Minority Percentage	Originations Per 100 Owner-Occupied Units (Purchases and Refinances) 1996	Originations Per 100 Owner-Occupied Units (Purchases and Refinances) 1997	Denial Rates (Home Purchases) 1996	Denial Rates (Home Purchases) 1997
Less than 10%	8.8 %	8.8 %	11.5 %	12.4 %
10-20	8.1	8.5	14.1	15.0
20-30	7.3	7.8	17.1	18.3
30-40	6.5	7.0	19.7	20.3
40-50	6.1	6.6	21.5	22.9
50-60	6.0	6.4	22.5	22.8
60-70	5.9	6.3	23.7	24.1
70-80	5.8	6.4	24.6	24.1
80-90	5.4	5.8	25.9	25.8
90-100	4.3	5.0	29.7	28.8
All Tracts	7.9	8.2	14.4	15.3

Tract Income Relative to MSA Median	Originations Per 100 Owner-Occupied Units (Purchases and Refinances) 1996	Originations Per 100 Owner-Occupied Units (Purchases and Refinances) 1997	Denial Rates (Home Purchases) 1996	Denial Rates (Home Purchases) 1997
Less than 20%	7.0 %	8.4 %	32.4 %	26.3 %
20-30	5.0	6.0	33.3	26.7
30-40	4.4	5.2	29.8	29.0
40-50	5.0	5.8	27.6	27.4
50-60	4.9	5.6	27.8	26.8
60-70	5.3	6.0	25.4	26.7
70-80	5.9	6.5	23.3	24.3
80-90	6.7	7.1	20.1	21.8
90-100	7.3	7.6	17.1	18.4
100-110	8.1	8.3	14.2	15.5
110-120	9.0	9.0	11.9	12.8
120-150	9.7	9.8	9.8	10.2
150+	9.1	9.1	8.2	8.4
All Tracts	7.9	8.2	14.4	15.3

Source: HUD analysis of 1996 and 1997 HMDA Data. Denial rate data exclude loans from nine lenders that primarily originate manufactured housing loans.

Table B.2

Mortgage Denial and Origination Rates By Minority and Income Characteristics of the Census Tract

Denial Rates (Purchase Mortgages Only)				
	Minority Composition			
Tract Income	< 30%	30-50%	50-100%	Total
Less Than 90%	21.9%	25.8%	27.7%	24.0%
90-120%	14.9%	20.3%	21.3%	15.6%
120+	9.1%	13.8%	16.8%	9.5%
Total	13.7%	21.3%	25.1%	15.3%

Origination Rates per 100 Owner Occupants (Purchase and Refinance Mortgages)				
	Minority Composition			
Tract Income	< 30%	30-50%	50-100%	Total
Less Than 90%	7.0	6.6	5.5	6.5
90-120%	8.5	6.7	6.2	8.3
120+	9.7	7.8	7.3	9.5
Total	8.7	6.8	5.8	8.2

Source: HUD analysis of 1997 HMDA Data. Data on denial rates exclude loans for nine lenders that primarily originate manufactured housing loans.

BILLING CODE 4210–27–C

Table B.2 illustrates the interaction between percent minority and tract income by aggregating the data in Table B.1 into six minority and income combinations. The low-minority (less than 30 percent minority), high-income (over 120 percent of area median) group has a denial rate of 9.1 percent and an origination rate of 9.7 loans per 100 owner occupants. The high-minority (over 50 percent), low-income (under 90 percent of area median) group has a denial rate of 27.7 percent and an origination rate of only 5.5 loans per 100 owner occupants. The other groupings fall between these two extremes.

The advantages of HUD's underserved area definition can be seen by examining the minority-income combinations highlighted in Table B.2. The sharp differences in denial rates and origination rates between the underserved and remaining served categories illustrate that HUD's definition delineates areas that have significantly less success in receiving mortgage credit. Underserved areas have almost twice the average denial rate of served areas (23.4 percent versus 12.2 percent) and two-thirds the average origination rate per 100 owner occupants (6.6 versus 9.1). HUD's definition does not include high-income (over 120 percent of area median) census tracts even if they meet the minority threshold. The mortgage denial rate (14.9) for high-income tracts with a minority share of population over 30 percent is much less than the denial rate (23.4) in underserved areas as defined by HUD, and only slightly above the average (12.2 percent) for all served areas.

b. Federal Reserve Bank Studies

The analysis of denial rates in the above section suggests that HUD's definition is a good proxy for identifying areas experiencing credit problems. However, an important question is the degree to which variations in denial rates reflect lender bias against certain kinds of neighborhoods and borrowers versus the degree to which they reflect the credit quality of the potential borrower (as indicated by the applicant's available assets, credit rating, employment history, etc.). Some studies of credit disparities have attempted to control for credit risk factors that might influence a lender's decision to approve a loan. Without fully accounting for the creditworthiness of the borrower, racial differences in denial rates cannot be attributed to lender bias.

The best example of accounting for credit risk is the study by researchers at the Federal Reserve Bank of Boston, which analyzed mortgage denial rates.[7] To control for credit risk, the Boston Fed researchers included 38 borrower and loan variables indicated by lenders to be critical to loan decisions. For example, the Boston Fed study included a measure of the borrower's credit history, which is a variable not included in other studies. The Boston Fed study found that minorities' higher denial rates could not be explained fully by income and credit risk factors. African Americans and Hispanics were about 60 percent more likely to be denied credit than Whites, even after controlling for credit risk characteristics such as credit history, employment stability, liquid assets, self-employment, age, and family status and composition. Although almost all highly-qualified applicants of all races were approved, differential treatment was observed among borrowers with more marginal qualifications.[8]

A subsequent reassessment and refinement of the data used by the Federal Reserve Bank of Boston confirmed the findings of that study.[9] William C. Hunter of the Federal Reserve Bank of Chicago confirmed that race was a factor in denial rates of marginal applicants. While denial rates were comparable for borrowers of all races with ''good'' credit ratings, among those with ''bad'' credit ratings or high debt ratios, minorities were significantly more likely to be denied than similarly-situated whites. The study concluded that the racial differences in denial rates were consistent with a cultural gap between white loan officers and minority applicants, and conversely, a cultural affinity with white applicants.

The two Fed studies concluded that the effect of borrower race on mortgage rejections persists even after controlling for legitimate determinants of lenders' credit decisions. Thus, they imply that variations in mortgage denial rates, such as given in Table B.2 are not determined entirely by borrower risk but reflect discrimination in the housing finance system. However, the independent race effect identified in these studies is still difficult to interpret. In addition to lender bias, access to credit can be limited by loan characteristics that reduce profitability[10] and by underwriting standards that have disparate effects on minority and lower-income borrowers and their neighborhoods.[11]

c. Controlling for Neighborhood Risk and Tests of the Redlining Hypothesis

In its deliberations leading up to FHEFSSA, Congress was concerned about geographic redlining—the refusal of lenders to make loans in certain neighborhoods regardless of the creditworthiness of individual applicants. During the 1980's and early 1990's, a number of studies using HMDA data (such as that reported in Tables B.1 and B.2) attempted to test for the existence of mortgage redlining. Consistent with the redlining hypothesis, these studies found lower volumes of loans going to low-income and high-minority neighborhoods.[12] However, such analyses were criticized because they did not distinguish between demand, risk, and supply effects[13]—that is, they didn't determine whether loan volume was low because families in high-minority and low-income areas were unable to afford home ownership and therefore were not applying for mortgage loans, or because borrowers in these areas were more likely to default on their mortgage obligations, or because lenders refused to make loans to creditworthy borrowers in these areas.[14] [15]

Recent statistical studies have sought to test the redlining hypothesis by more

[7] Alicia H. Munnell, Lynn E. Browne, James McEneaney, and Geoffrey M. B. Tootell, ''Mortgage Lending in Boston: Interpreting HMDA Data,'' American Economic Review, march 1996.

[8] A HUD study also found mortgage denial rates for minorities to be higher in ten metropolitan areas, even after controlling for credit risk. In addition, the higher denial rates observed in minority neighborhoods were not purely a reflection of the higher denial rates experienced by minorities. Whites experienced higher denial rates in some minority neighborhoods than in some predominantly white neighborhoods. Ann B. Schnare and Stuart A. Gabriel, ''The Role of FHA in the Provision of Credit to Minorities,''ICF Incorporated, prepared for the U.S. Department of Housing and Urban Development, April 25, 1994.

[9] William C. Hunter, ''The Cultural Affinity Hypothesis and Mortgage Lending Decisions,'' WP–95–8, Federal Reserve Bank of Chicago, 1995.

[10] Since upfront loan fees are frequently determined as a percentage of the loan amount, lenders are discouraged from making smaller loans in older neighborhoods, because such loans generate lower revenue and are less profitable to lenders.

[11] Traditional underwriting practices may have excluded some lower income families that are, in fact, creditworthy. Such families tend to pay cash, leaving them without a credit history. In addition, the usual front-end and back-end ratios applied to applicants' housing expenditures and other on-going costs may be too stringent for lower income households, who typically pay larger shares of their income for housing (including rent and utilities) than higher income households.

[12] These studies, which were conducted at the census tract level, typically involved regressing the number of mortgage originations (relative to the number of properties in the census tract) on characteristics of the census tract including its minority composition. A negative coefficient estimate for the minority composition variable was often interpreted as suggesting redlining. For a discussion of these models, see Eugene Perle, Kathryn Lynch, and Jeffrey Horner, ''Model Specification and Local Mortgage Market Behavior,'' Journal of Housing Research, Volume 4, Issue 2, 1993, pp. 225–243.

[13] For critques of the early HMDA studies, see Andrew Holmes and Paul Horvitz, ''Mortgage Redlining: Race, Risk, and Demand,'' The Journal of Finance, Volume 49, No. 1, March 1994, pp. 81–99; and Michael H. Schill and Susan M. Watcher, ''A Tale of Two Cities: Racial and Ethnic Geographic Disparities in Home Mortgage Lending in Boston and Philadelphia,'' Journal of Housing Research, Volume 4, Issue 2, 1993, pp. 245–276.

[14] Likely early HMDA studies, an analysis of deed transfer data in Boston found lower rates of mortgage activity in minority neighborhoods. The discrepancies held even after controlling for income, house values and other economic and non-racial factors that might explain differences in demand and housing market activity. The study concluded that ''the housing market and the credit market together are functioning in a way that has hurt African American neighborhoods in the city of Boston.'' Katherine L. Bradbury, Karl E. Case, and Constance R. Dunham, ''Geographic Patterns of Mortgage Lending in Boston, 1982–1987,'' New England Economic Review, September/October 1989, pp. 3–30.

[15] Using an analytical approach similar to that of Bradbury, Case, and Dunham, Anne Shlay found evidence of fewer mortgage loans originated in black census tracts in Chicago and Baltimore. See Anne Shlay, ''Not in That Neighborhood: The Effects of Population and Housing on the Distribution of Mortgage Finance within the Chicago SMSA,'' Social Science Research, Volume 17, No. 2, 1988, pp. 137–163; and ''Financing Community: Methods for Assessing Residential Credit Disparities, Market Barriers, and Institutional Reinvestment Performance in the Metropolis,'' Journal of Urban Affairs, Volume 11, No. 3, 1989, pp. 201–223.